

THE NATIONAL PROVISIONER

PUBLISHED EVERY SATURDAY

(Copyright, 1904, by the Food Trade Publishing Co.)

ENTERED AT NEW YORK AT SECOND-CLASS RATES.

Vol. XXXII.

New York and Chicago, April 1, 1905

No. 13.

NEED MORE REFRIGERATOR CARS.

The Indianapolis Abattoir Company has placed an order with the American Car and Foundry Company for 75 new refrigerator cars for its meat service. The company's traffic has increased to such an extent that its present equipment has been found insufficient, and the order for the new cars will be rushed to completion.

STEAM TO REPLACE "20 MULE TEAM."

The famous "20 mule" teams that have done so much to advertise borax in this country, may soon be a thing of the past as far as their use in transporting the borax is concerned. It is reported that the owners of the great borax mines in Death Valley, Cal., intend to build a railroad from Soda Lake into Death Valley and haul their product out in that way. But whatever is done, the 20-mule team will always remain famous.

FISH BAIT IN COLD STORAGE.

Plans are on foot for the establishment of a cold storage plant at Gloucester, Mass., for the preservation of bait, in view of the decision of the Newfoundland government that bait shall not be sold to American fishermen at Newfoundland ports. It is proposed to procure and store bait and to establish a system of distribution between Gloucester and the fishing grounds by means of cold storage vessels. It is claimed that the project will make the American fishermen independent so far as bait is concerned.

TO REHEAR REFRIGERATION CHARGES.

The Interstate Commerce Commission has entered an order re-opening the inquiry into the icing charges imposed by the Armour car lines, under the authority of the Michigan Central and Pere Marquette Railroad companies, on fruit shipped from points in Michigan to interstate destinations, and has set the matter for hearing at Chicago, May 9.

It is the intention of the commission also to inquire into the reasonableness of other refrigeration charges as applied to points not mentioned in the former decision. In that decision, the refrigeration charges on fruit from Michigan to Boston, Dubuque and Duluth were held unreasonable and unjust.

MORE OIL CONCENTRATION TALK.

The meeting of the "independent" crude oil mill men at Jackson, Miss., recently has found a counterpart in Louisiana. The Louisiana crude oil mills claim that they have not made a dollar in two years. One of the largest cottonseed oil millers in that State writes that the crude plants have been at a standstill and have, at most, only held their own. They have failed to mark up a profit. The millers down there are keeping their eyes on the Jackson scheme and are quietly planning a conference of one hundred men who will meet at some western point and go over the question of co-operation for material benefit and profit. This meeting will take place soon.

FINAL COTTON CENSUS REPORT.

The census bureau this week issued its final report on cotton ginning for this season, showing its estimates of the total cotton production of 1904, accompanied by comparative statistics for 1903. The total crop reported from ginning establishments and cottonseed oil mills is summarized as follows:

	1904.	1903.
Total crop, counting round as half bales, and including linters	13,597,782	10,014,454
Equivalent 500-pound bales (including linters)	13,584,437	10,045,614
Total running bales (including linters)	13,745,857	10,396,558
The distribution is as follows:		
Square bales (upland crop) reported from ginneries	13,103,447	9,359,472
Round bales (upland crop) reported from ginneries	296,151	770,208
Bales of sea-island cotton reported from ginneries	104,317	75,393
Bales of linters reported from cottonseed oil mills	241,942	194,485

The report explains that the "data for the above statistics have been collected through a canvass of the individual ginneries of the cotton States by local special agents, who found that 30,337 ginneries had been operated for the crop of 1904, compared with 30,218 for 1903. In the final canvass for this crop where ginneries had not finished ginning, they were requested to prepare careful estimates of the quantity of cotton which remained to be ginned at their establishments; these estimates, amounting to 192,275 running bales, have been included in the totals."

The complete annual report on cotton ginning, distributing by counties the production of the last five years, will be published about May 1, as usual.

OIL MEN TO MEET AT NEW ORLEANS.

The ninth annual convention of the Interstate Cottonseed Crushers' Association will be held at New Orleans on May 16, 17 and 18. There was spirited competition among several southern cities for the honor of entertaining the mill men this year, but New Orleans won out. The decision was reached on Wednesday at a meeting of the executive committee held at New Orleans. There will be many questions of more than usual interest to come before the convention this year, and a very large attendance is expected.

ANTI-TRUST LAW INVALID.

The Supreme Court of Arkansas has declared the King anti-trust law of that state to be invalid. A test case was brought through a commercial traveler for a St. Louis firm, and the statute was knocked out. It is in this state that action has just been brought by the attorney general against the Armour and other refrigerator car lines for many thousands of dollars of unpaid license fees for cars operated in the state. As in neighboring states, the companies dispute the right of the states to levy such taxes.

TEXAS HITS AT THE PACKERS.

The Texas legislature has recently passed some more amendments to its anti-trust laws, one of which is said to have been especially aimed at the packers who have plants at Fort Worth. It is claimed that they have been selling meats in Fort Worth at higher prices than elsewhere.

The section which hits at them reads: "Any corporation, foreign or domestic, doing business in the state of Texas, and engaged in the sale, production, manufacture or distribution of any commodity in general use, that shall discriminate between different sections, communities or cities of this state, by selling such commodity at a lower rate in one section, community or city than is charged for such commodity in another section, community or city, after equalizing the distance from point of production, manufacture or distribution and freight rates therefrom, shall be deemed guilty of unlawful discrimination." The penalty provided for discrimination of this character is a fine of \$500 per day that such violation exists.

IS UNDRAWN FROZEN POULTRY POISONOUS?

The question of the healthfulness or unhealthfulness of undrawn poultry has from time to time engaged the serious attention of the States of New York, Pennsylvania and others. Pennsylvania has taken some action toward prohibiting the sale of such poultry under certain conditions. New York now has the matter before its Legislature. Particular stress is laid upon the condition of long-stored poultry.

Scientists are at variance upon the question of the comparative sanitary condition of drawn and undrawn poultry, whether it be stored or not. English medical science has not dissuaded the public from the use of "high" game or domestic turkey or duck. The ripening has been effected with the entrails remaining in the bird during the aging period. No serious consequences are noted.

The edible fowl of all kinds is a vegetarian. Its food is simply stored and highly digested. Offal is not in itself a generator of disease. One might live among manure heaps and not contract ailments therefrom. If cold storage arrests decay in fowl flesh and keeps it "as is" when received, it is hard to see what other principle can be applied to the interior of the bird, especially when the substance is frozen. One would not advance the theory that flesh

or any substance caught in an ice floe and held there would deteriorate while imbedded in the ice. Deer dug out of the ice in Iceland and Labrador after a generation of imprisonment has been found to be perfectly sound and wholesome. It would seem that the entrails and other offal of the deer would have degenerated and have produced the same danger of bacilli as in the case of poultry or other game.

It seems to be chiefly those who are the merest laymen or else are medical "cranks" who insist upon stored undrawn fowls and birds being poisonous. Certain chemical changes take place after death and with age in all flesh. That does not necessarily mean that the changes produce disease. Drawn poultry keeps longer in open air because the juices, under heat influence, and the offal mass tend to produce the heat that sets up fermentation and other secondary results. The air also getting in nearer the bones of drawn poultry tend to keep down the heat effect. But cold air of a sufficiently low temperature removes the heat problem and practically leaves the situation neutralized. If frozen poultry is sanitary after a week in storage it should be so after years at or near the zero point.

PETROLEUM AS A FOOD INGREDIENT

The entry of mineral oil into edible oil channels is, apparently, assured. It is a menace, and the alarm might as well be sounded now. Paraffin, in seeking a wider field of consumption, sought to compete with stearine in the manufacture of cheap butters, lards and low grades of candies. The small makers of this low-grade of stiffened lard have been pursued by brokers and the more reputable manufacturers so assiduously that most of the fraud has been eliminated. The petroleum ingredient is still used in cheap caramels and other low-priced confections. It is also used in other edible products, though virtually eliminated from compound and other kinds of butter substances.

The use of paraffin in edible products is largely due to a knowledge of its purity and to its keeping qualities, as well as to a general ignorance of the temperature of the stomach and that which is required to melt paraffin. Deodorized and partially demineralized petroleum for general use in the factory and the kitchen is another matter. This product, it seems, is being used in making candies. It is being used by bakers, who may do so without a knowledge of its character. It is being tested, if not secretly used, in adulterating other oils, having an ambition to divide the honors with cottonseed oil, peanut and other vegetable oils in the adulteration of olive oil. Serious experiments have been made with this highly refined petroleum oil in fish and vegetable canning and in the manufacture of soap. The line of experiments carried out and now being carried out by chemists in certain employ indicate the desire, if not the purpose, of the principals in the premises.

These experiments recall the following inquiry of The National Provisioner by a mineral oil trust magnate: "What is the essential difference between all edible oils—mineral or otherwise—in their last analysis?" The an-

swer was: "They have, virtually, no chemical difference, but their reaction is not the same." He was thereupon asked: "Can you make an edible from a mineral oil?" This was his answer: "Yes, but at too great a cost for commercial purposes at present."

Evidently the partially demineralized and the wholly deodorized petroleum oil for edible purposes, as well as for other purposes, has arrived. Just how far the product has found its way as an adulterant cannot be told, because the process is a secret one and the sale of the stuff well guarded. A man who is an expert in the bakery line states that the oil is sold for baker's use and is being pushed in that trade. The chemists expect to make a cooking oil, a canner's oil, a lubricating oil, a general adulterant oil, a paint oil and other oils, besides soap stock, from petroleum.

The building and other trades may find use for this cheap product if it can be adjusted to their purpose, but the food trade can hardly welcome so doubtful a product in any of its lines until medical and dietetic science have passed upon it favorably.

ADDITIONAL FEBRUARY EXPORTS.

Following are figures compiled by the Bureau of Statistics, Department of Commerce and Labor, on certain exports for February, 1905, and for the eight months ending with February, 1905, as compared with similar periods of the previous year. These are in addition to the export figures for meats, provisions and livestock published in The National Provisioner on March 18:

Bones, Hoofs, Horns, etc.—February, 1904, value \$10,619; February, 1905, value \$11,374. For eight months ending February, 1904, value \$130,850; same period, 1905, value \$86,561.

Glue.—February, 1904, 103,294 lbs., value \$9,791; February, 1905, 223,044 lbs., value \$22,992. For eight months ending February,

1904, 1,738,187 lbs., value \$168,709; same period, 1905, 1,745,837 lbs., value \$175,880.

Grease and Soap Stock.—February, 1904, value \$255,049; February, 1905, value \$274,795. For eight months ending February, 1904, value \$2,327,978; same period, 1905, value \$2,392,556.

Hides and Skins.—February, 1904, 2,292,369 lbs., value \$232,078; February, 1905, 684,880 lbs., value \$65,227. For eight months ending February, 1904, 22,422,172 lbs., value \$2,207,905; same period, 1905, 6,945,965 lbs., value \$684,047.

Cottonseed Oil Cake and Meal.—February, 1904, 74,711,922 lbs., value \$836,299; February, 1905, 142,065,531 lbs., value \$1,571,090. For eight months ending February, 1904, 628,766,487 lbs., value \$6,934,148; same period, 1904, 906,006,308 lbs., value \$10,090,152.

Lard Oil.—February, 1904, 23,550 gals., value \$15,123; February, 1905, 13,168 gals., value \$7,676. For eight months ending February, 1904, 235,239 gals., value \$158,226; same period, 1905, 167,631 gals., value \$97,333.

Cottonseed Oil.—February, 1904, 3,439,645 gals., value \$1,286,079; February, 1905, 6,465,625 gals., value \$1,948,570. For eight months ending February, 1904, 19,033,212 gals., value \$7,206,195; same period, 1905, 30,318,864 gals., value \$9,129,709.

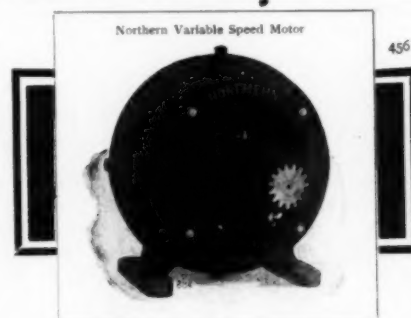
Lard Compounds.—February, 1904, 3,874,237 lbs., value \$244,082; February, 1905, 9,530,651 lbs., value \$557,833. For eight months ending February, 1904, 32,633,751, value \$2,230,594; same period, 1905, 41,523,430 lbs., value \$2,479,435.

Mutton.—February, 1904, 13,615 lbs., value \$1,117; February, 1905, 63,168 lbs., value \$4,345. For eight months ending February, 1904, 274,808 lbs., value \$25,906; same period, 1905, 450,215 lbs., value \$34,242.

Sausage and Sausage Meats.—February, 1904, 296,066 lbs., value \$33,761; February, 1905, 364,502 lbs., value \$40,914. For eight months ending February, 1904, 3,066,506 lbs., value \$341,389; same period, 1905, 3,496,910 lbs., value \$391,542.

Sausage Casings.—February, 1904, value \$119,976; February, 1905, value \$208,102. For eight months ending February, 1904, value \$1,504,289; same period, 1905, value \$1,909,220.

Soap (except toilet or fancy).—February, 1904, 3,633,827 lbs., value \$145,616; February, 1905, 3,475,926 lbs., value \$144,776. For eight months ending February, 1904, 31,455,788 lbs., value \$1,238,280; same period, 1905, 29,006,653 lbs., value \$1,144,204.



Variable Speed Drive For Compressors, Fans, Pumps, Etc.

DRIVE such machines as need different speeds with Northern Variable Speed Motors. Any required range of speed; all variations secured instantly by manipulation of small lever; controlling device can be located at any convenient distance from motor.

BULLETIN NO. 2237A CONTAINS DETAILS REGARDING NORTHERN VARIABLE SPEED MOTORS. THEY OPERATE FROM ANY ORDINARY TWO-WIRE SINGLE-VOLTAGE CIRCUIT.

NORTHERN ELECTRICAL MFG. CO.

ENGINEERS—MANUFACTURERS
Madison, Wis. U. S. A.

GRAND JURY INDICTS BEEF MAN

T. J. Connors of Armour & Company Arrested on a Charge of Tampering With a Witness at the Federal Grand Jury Investigation—Unexpected Output of the Chicago Sensation Mill.

The federal inquisition of the beef industry at Chicago turned out its first fruits on Tuesday. One indictment was returned, on grounds entirely unexpected. Thomas J. Connors, general superintendent of Armour & Company, was indicted for an alleged attempt to influence and intimidate witnesses who are before the federal grand jury in the present hearing. Indictments for alleged violation of anti-trust or interstate commerce laws would not have been surprising, but the arrest of one of the leading lights of Chicago packing circles on a criminal charge was sensation enough to satisfy the hungriest reader of the "yellows."

Mr. Connors appeared to be as much surprised as any one. Indeed, he was more than surprised—he was agitated—when United States marshals appeared at his residence on Tuesday evening and put him under arrest. It was alleged that he had tampered with John E. Shields, a witness before the grand jury, and had attempted to influence his testimony before the jury. One of the principal charges is that Connors showed Shields through the Armour packing plant! Mr. Connors was released on bonds signed by Alfred R. Urion, general counsel for Armour & Company, and Edward Tilden, vice president of Libby, McNeil & Libby. The trial of his case will come up in July before the United States district court in Chicago.

John E. Shields, the witness in the case, was arrested the following day and gave bond to assure his appearance at the Connors trial. It is claimed that he made statements in the grand jury room implicating Connors, and the prosecuting lawyers are anxious to hold him to them. Shields was formerly a stenographer in the provision department of the Armour general offices in New York. It is now stated that he is the New York representative for H. J. Ellis & Company, agents for Armour & Company at Singapore. He was allowed to sign his own bond, and as he had finished his testimony before the grand jury, was permitted to return to his home in Brooklyn.

Trailed by Many Sleuths.

The secret service agents in the employ of the government claim to have discovered attempts on the part of packers' representatives to influence witnesses appearing at the grand jury hearing. Witnesses have been closely watched, and their every movement shadowed. Many of these witnesses from outside points were compelled to wait for several days before they could be heard, and in the meantime were made very uncomfortable by the shadowing tactics pursued by government agents and "yellow" newspaper sleuths.

Shields was one of those followed. After he had been shadowed for several days, during which time he "took in" the stock yards, packing plants, etc., he was called into the jury room and put through the "sweating" process. This, along with the reports of the amateur and professional detectives who had been on his heels, resulted in alleged revela-

tions sufficient to cause the grand jury to return an indictment. The indictment contains the following specific charges against Connors:

Charges Against Mr. Connors.

"That he unlawfully did give to the said John E. Shields the use of the offices of the said Armour & Company in the said city of Chicago and a place for transacting his correspondence with his associates in the said city of New York; and

"Unlawfully did give the said John E. Shields the free use for such correspondence of the private telegraph then maintained by the said Armour & Company between the cities of Chicago and New York; and

"Unlawfully did show the said John E. Shields through the packing plants of the said Armour & Company, at Chicago aforesaid, and favor and entertain the said John E. Shields in other ways which are to the grand jurors as yet unknown; and

"Unlawfully did discuss with the said John E. Shields the matters concerning which he had been so subpoenaed to testify and suggested that he, the said John E. Shields, should testify favorably to the said Armour & Company and to him, the said Thomas J. Connors, when he should be called before the said grand jury as such witness, and that he, the said John E. Shields, should refuse and neglect to tell all he then knew concerning the matters and violations aforesaid before the said grand jury when testifying as such witness."

It is also charged in the indictment that Mr. Connors endeavored to influence others.

Mr. Connors had nothing to say after his arrest. Representatives of the packers under investigation state that they are not afraid of the result of the indictment. They believe it will not stand in court. In some quarters it is called a "put-up job."

Mr. Armour Explains.

J. Ogden Armour issued a statement giving the details of the case. He stated that Shields was a representative of Ellis & Company, of Singapore, and that in justice to Mr. Connors the facts should be known. He said:

"As I am now informed, Shields upon his arrival, called at the office of Armour & Company to inquire for mail and telegrams relating to his business, which he himself had directed to be sent to him there. His calls there were entirely his own action. The usual courtesies of a business house to its representatives were accorded to Mr. Shields to the extent of granting his request to communicate with his office in New York over the private wires of the company concerning his business affairs there, and to care for his incoming mail and telegrams when received until he should call for the same.

"Mr. Evans, at the head of our foreign department, tells me which I did not before know, nor did Mr. Connors, that he invited Mr. Shields to lunch on the day of his arrival in Chicago, and that they were accompanied by the shipping clerk of that department in order that they might discuss the business of Armour & Company with Messrs. Ellis & Company, especially with respect to the shipping end of the business, which was in charge of Mr. Shields in New York; but Mr. Evans informs me, and I have every reason to believe it true, that the subject of Mr. Shields' appearance before the grand jury was not discussed.

"Furthermore, the common courtesy of inviting Mr. Shields, he never having been there, to visit the packinghouses when in Chicago, was extended to him and he ac-

cepted the invitation last Saturday, appearing some time during the forenoon at the packinghouse unaccompanied by any one. A guide was immediately assigned and he was taken around for the inspection of the plant, in the manner usual to all visitors.

"Mr. Connors assures me that on neither of the occasions on which he saw Mr. Shields did he, as charged in the indictment, attempt in any manner to tamper with or influence the witness in the performance of his duty."

Assistant District Attorney-General Pagin, of Washington, the "indictment expert" of the department of Justice, who is in Chicago helping the district attorney with the investigation, made the statement that the grand jury was working on further charges of conspiracy said to implicate packers in a plot to influence witnesses. He said that more sensational indictments might be expected. Concerning the investigation he said:

Government Lawyer Talks.

"It is believed throughout the country, and more especially in Chicago, that the report of Commissioner Garfield was a whitewash for the packers. When part of his report was submitted to Congress and published, the public was told that his report was a vindication for the packers. And why not? Only that part of the report which had been gathered by the men making the report from the packers themselves was published. It was a report of the views of all the big packers which reached the public.

"The part of the report which might show something concerning the workings of the so-called beef trust was not published. The President under the Constitution has the right to withhold this from Congress if he believes it would aid the Government in the prosecution of any person or persons. Some time probably the public will know all of the inside of that report. That is a way the Government has of allowing results to show for themselves without making any wild statements."

The main investigation by the grand jury does not appear to be progressing very rapidly. Few witnesses are examined each day, and as a large number have been summoned, the wheels of justice appear to be somewhat clogged. To relieve the congestion the government attorneys decided this week that no more witnesses residing in Chicago would be heard until the out-of-town witnesses were disposed of.

The managers of the "star chamber" proceeding appear to be having a hard time to keep the public from finding out what is going on. They have surrounded the jury room with all sorts of guards and cordons and barb-wire entanglements, and each witness has been warned to keep his mouth shut after leaving the room. But in spite of it all the sensational press prints columns daily of the alleged proceedings in the inquisition chamber.

From these reports, and from the statements of witnesses who have testified, it appears that the government's lawyers are making strenuous efforts to prove something or other—anything—against the accused packers. The questions asked are very general in their nature, and the replies are said to have been decidedly unsatisfactory to the inquisitors. It is believed that the lack of success in eliciting sensational evidence caused the lawyers to seize upon the witness-tampering story as a welcome relief. This feature will be "played up" for all it is worth, in case the main investigation is a failure, in order to save the faces of the government officials who are conducting it.

THE BEEF INDUSTRY

Summary of the Official Report of James R. Garfield, Commissioner of Corporations, U. S. Department of Commerce and Labor.

(Continued from last week.)

The most important question has to do with the prices of cattle and of beef, and the margin between them, and with profits. The Bureau of Corporations has had access to all the price records of the leading packing companies, and also to all the accounts and records, excepting car line accounts, regarding other important factors which affect this margin and which determine the profits of the packers. The reasonableness of the prices paid by the packers for cattle and the prices charged by them for beef cannot be judged from a mere comparison of the margin between the two, but can only be determined by complete knowledge of the profits of the business.

The bureau has obtained, from the original cattle-killing books of the packers for at least one and usually for several plants at each of the five leading packing centres, the total live weight and live cost of all cattle killed from month to month since 1902, and for one plant at each point since 1898. In addition, the total weight and cost of particular classes of cattle have been ascertained for one or more plants in each packing centre. The net prices received for all beef shipped from the most important plants have been ascertained in the case of the Armour, Swift and Schwarzschild & Sulzberger companies for a period of two years, while for all six of the leading packing companies the average prices received for all beef sold in important selected cities and towns have been compiled for a series of years.

All the statistics taken from the books of the companies were checked in the most thorough manner. Totals selected at random were verified by the items. Many typical bunches of cattle have been traced from the time of purchase to the time of sale as dressed beef, thus obtaining accurate information from original records of cost, of actual selling prices and of ultimate profits. In many cases the statements of cattle purchased by the companies were compared with accounts of the commission houses through whom the cattle were sold. The various checks thus employed insure the absolute accuracy of the figures.

Classes and Grades of Cattle.

There are many classes and grades of cattle, differing widely in character and price. The average price of all cattle killed may fall from one period to another merely because a larger number of low-grade animals come to market, the price for cattle of a given quality remaining unchanged. Every Fall there is a great influx of Texan and Western grass-fed cattle from the ranges and ranches, and the low price which they command depresses the average for all cattle, and at times directly lowers also the price of the higher grades of cattle. These grass-fed cattle produce a smaller proportion of beef than corn-fed cattle, and this beef is of inferior quality, while the value of their by-products is usually less in proportion to the live weight than in the case of corn-fed cattle.

Similarly, changes from year to year in the percentage of beef obtained from cattle and in the quantity and prices of by-products necessarily affect cattle prices.

The following table compares the average prices of cattle and of beef by semi-annual periods since 1898. The price of cattle represents a properly weighted average of all cattle killed at one plant each in Chicago, South Omaha, East St. Louis and South St. Joseph. The price of beef represents the average, weighted according to population, of all the beef sold by one of the leading Western packers at nine Eastern markets, namely, New York, Boston, Philadelphia, Chicago, Pittsburgh, Baltimore, Washington, Newark and East Orange combined, and Providence and Pawtucket combined, reduced to a packing point basis by the subtraction of the expense of freight, icing in transit and loss due to shrinkage, but not deducting commissions of selling houses and agencies.

Period.	—Packing point basis.—		
	Weighted average price of beef sold by a leading packer at 9 cities.*	Weighted average live price of cattle, 1 packer each, 4 packing centers combined.†	Difference.
1898—			
Jan. to June.....	\$6.53	\$4.21	\$2.32
July to Dec.....	6.90	4.09	2.81
1899—			
Jan. to June.....	7.00	4.51	2.49
July to Dec.....	7.34	4.45	2.89
1900—			
Jan. to June.....	6.88	4.59	2.29
July to Dec.....	7.22	4.34	2.88
1901—			
Jan. to June.....	7.07	4.61	2.46
July to Dec.....	7.13	4.39	2.74
1902—			
Jan. to June.....	8.32	5.41	2.91
July to Dec.....	7.39	4.37	3.02
1903—			
Jan. to June.....	6.59	4.38	2.21
July to Dec.....	6.47	3.89	2.58
1904—			
Jan. to June.....	6.71	4.31	2.40

*Weighted according to population.

†Weighted according to total slaughter in Chicago, Omaha, East St. Louis, and St. Joseph.

The prices of beef shown here and elsewhere in this report are carcass prices, representing the average amount received for all the different cuts of beef taken together, and they do not, therefore, correspond at all closely with the prices of some of the finer cuts with which alone some purchasers are familiar. There is a very wide variation in the prices of different cuts, some selling for much less than the average carcass price, and others necessarily selling for much more than the average.

Carcass Prices and Retail Cuts.

If a packer cuts up a carcass which he would sell whole for 6 cents a pound, he may have to charge 10 or 12 cents for the ribs and loins, because for the chuck, plate, shank and certain other parts he will get only from 3 to 5 cents per pound. Moreover, the retail butcher must adopt the same policy; indeed, in his hands the gradation of prices becomes much more marked. For porterhouse steak out of a carcass costing him 6 cents he may have to charge 18 cents, even in addition to his operating expenses and profit, simply because part of the loin is waste or commands a much lower price. Wholesale carcass prices of beef can never be judged by the prices of particular cuts.

As shown below, the changes in the margin between cattle prices and beef prices give little information as to changes in the profits of the packers. It should be noted, however,

that the table shows that the margin on beef, instead of being unusually high during 1903, as popularly believed, was for each half of that year lower than the margin for any corresponding half year since 1898. The increase in the margin for the second half of 1903 over the first half was no greater than the similar change in other years.

More complete statistics for the period since 1902, covering the total killing of cattle at most of the packing plants in the five leading Western markets and the sales of beef at twenty-four cities having a total population of about 10,000,000, confirm the statistics in the above table. The margin shown on the wider basis is \$2.81 per hundred-weight for January to June, 1902; \$2.83 for July to December, 1902; \$2.14 for January to June, 1903; \$2.41 for the second half of 1903, and \$2.33 for the first half of 1904.

Margin Between Cattle and Beef.

The table shows that the margin between the prices of cattle and of beef was higher in 1902 than at any time since 1898. This by no means indicates that the profit of the packers was unusually great in that year. This may readily be appreciated when it is remembered that on the average only from 54 to 57 per cent. of the live weight of cattle constitutes dressed beef. Although the value of the by-products derived from the remainder of the animal is a very important factor, it is always in the aggregate much less than the live cost of that part of the animal. Consequently, when the price of cattle is high there must be a wider margin between the prices of cattle and the beef in order to make up for the cost of the offal in the live animal. The proportion of the value of by-products to live cost being constant and other things being equal, the margin between live cost and the price of beef should, in order to maintain a uniform profit, represent approximately a uniform percentage of the live cost from period to period.

In order to understand the variations from one year to another and from one semi-annual period to another in the margin between prices of cattle and of beef, it is necessary to take into account not only the changes in the percentage of beef derived from the live weight, but also changes in other important factors. The variations which have taken place in the cost of operation, in freight charges between packing plants and consuming points, and in local selling expenses have not been sufficient to very materially affect margins. On the other hand, the value of by-products has varied greatly; and, since the difference between the maximum and minimum value of by-products per head during the past two or three years has much exceeded the total profit of the packers, these changes have necessarily had a powerful influence on the margin between cattle and beef.

By-Product Values Were Low.

Thus the price of hides, the most important by-product of cattle, which was at the maximum in 1902, declined sharply in 1903 and 1904. The average price received for all hides sold by the Armour, Swift and Schwarzschild & Sulzberger companies from ten packing plants fell from 11.8 cents in the second half of 1902 to 9.7 cents in the second half of 1903, representing a decline in

the net value of the hide per head from \$6.93 to \$5.70.

The prices of the oleo oil and stearin derived from the fat of cattle were also at their highest level in 1902, and partly as the result of anti-oleomargarine legislation they fell rapidly in the summer of 1903. Thus the average price received for stearin by the three packers named was 13.4 cents in the second half of 1902 and only 7.1 cents in the second half of 1903. The total net value of fat for the three packers declined from \$3.53 per head for July and December, 1902, to \$2.24 for the corresponding period of 1903.

The value of the other by-products of cattle, which altogether are worth a little over \$1.50 per head, has not varied sufficiently to affect the margin between the prices of cattle and beef in an important degree.

Conditions in 1902 Were Abnormal.

The table showing the movement of cattle and beef prices since 1898 indicates that the conditions in 1902 were quite abnormal, and that the cattle prices of 1903 and 1904 should not be judged by a comparison with the year immediately preceding.

The steady prosperity of the years from 1899 to 1902 led, apparently, to a considerable increase in the per capita consumption of beef. The number of cattle slaughtered at the Western packing centers increased year by year up to and including 1901. The prices of cattle rose slowly.

The corn crop of 1901, however, was exceptionally poor, both in quantity and quality. The average price of corn on the Chicago Board of Trade rose from 42½ cents during the first half of 1901 to 61 cents during the first half of 1902. The comparative failure of the corn crop tended to reduce the number of cattle bought for feeding in the winter of 1901. It also induced many cattle feeders to send their stock to market in a half-fat condition, thus reducing the average weight of cattle and the average percentage of dressed beef to live weight.

The number of cattle slaughtered at the five leading Western packing centers during the first half of 1902 decreased only about 1 per cent. as compared with the first half of 1901, but the total live weight of the cattle slaughtered is computed to have decreased 4.4 per cent., and the computed dressed weight of the cattle slaughtered decreased considerably more. In the face of the strong demand the price of cattle was forced to the highest level ever known. The high prices of beef, which caused so much complaint among consumers at this time, were attributable wholly to these abnormal cattle prices.

A great change in conditions of the cattle market took place in 1903. The complaints of consumers of beef gave place to complaints of cattle raisers. The high prices of 1902 had induced many cattlemen to pay high prices for feeder cattle. By December, 1902, many cattle thus purchased had begun to come into the market. Both sellers and buyers were now able to foresee a continued heavy supply. Prices accordingly broke sharply. Many who had paid high prices for feeder cattle, and who were paying still relatively high prices for corn, were forced to send their cattle to market immediately on account of the calling of loans. A large proportion of the cattle feeders of the Missis-

sipi Valley, beyond question, lost money during 1903.

The lower level of prices continued throughout the year and during the first six months of 1904, little change appearing except the usual seasonal fluctuations. While there has been some slight advance in prices since May, 1904, the prevailing level is still not much higher than in 1903.

Due to Law of Supply and Demand.

The fall in the prices of cattle in 1903 was very clearly the result of the law of supply and demand. The number of cattle killed in the five leading Western markets during the first half of 1903 was more than 15 per cent. greater than during the first half of 1902, and on account of the increased size of the cattle the quantity of beef derived from those killed increased 22 per cent. The second half of the year 1903 showed an increase in the quantity of beef derived from the cattle killed at these markets of about 10 per cent.

The price of beef, far from remaining at the high level of 1902, fell during 1903 by a larger absolute amount and by about the same percentage as the price of cattle.

In a supplementary report to be published later there will be presented the substance of the large amount of information which the Bureau has obtained with regard to the conditions of the cattle business during the past few years, the changes in the cost of production, the effect of the changes in prices upon the profits of the cattlemen, and the outlook for the future.

(Continued next week.)

Note.—The publication of the official report of Commissioner Garfield on his investigation of the beef industry began in the issue of The National Provisioner of March 25.

EAGER FOR THE WOOL.

For the second time within the memory of wool men a season's wool crop has been practically contracted for before it left the backs of the sheep. So great has been the shortage

and so pressing the demand that a state of affairs almost unprecedented has resulted. Shearing has already begun in parts of the West, particularly Nevada and Idaho. The operations now under way embrace about two-thirds of the clip in Nevada, or 400,000 head. This is mostly all fine wool and is contracted for at from 15 to 16 cents. In Idaho general shearing will not begin until about April 1, and Southern Utah between the 5th and 10th of April.

It is said that between 50 and 60 per cent. of the entire clip of "territory" wools has been contracted for, while when it comes to medium or lighter wools throughout the entire West the probabilities are that from 75 per cent. to 85 per cent. of the clip has been disposed of while it still remained on the sheep's back.

FOOD LAW HITS "MAPLE" SUGAR.

As the result of the pure food law passed by the Vermont legislature and the enforcement of a similar law in Massachusetts, the Boston Fruit and Produce Exchange, which handles the greater part of the Vermont maple sugar crop shipped to New England points, will decline all shipments this year not properly labeled as to the purity of the contents. The goods must be labeled "pure maple sugar," or syrup as the case may be. If the product contains granulated sugar or other ingredient it must be labeled "compound maple sugar."

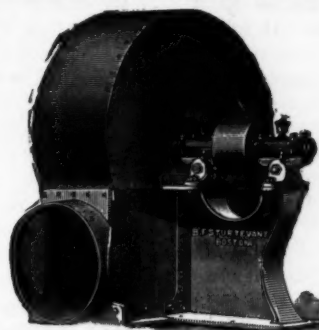
Traveling men say that because of the pure food law the amount of white sugar sold in the mountain towns of Vermont this spring is less than half the average.

PORK ROASTS AT WINNIPEG.

The pork packing plant of the J. Y. Griffin Company at Winnipeg, Man., was partially destroyed by fire on Wednesday. The warehouse, filled with pork products, was entirely destroyed. It is understood that rebuilding operations will begin at once.

Sturtevant Exhausters

Reduce the Cost of Conveying Light Materials



The shells are of steel plate of such thickness as to withstand the abrading action of the material. A cast-iron support attached to the side of the shell carries the continuous oiling boxes with the shaft and pulley, and sustains the entire strain. The fan wheel is overhung upon the end of the shaft, thus leaving the inlet entirely unobstructed for the free passage of the material to be handled. They are suitable for conveying chips, shavings, sawdust, wood pulp, tan, etc. Special fans are built for conveying wool, cotton, jute and similar fibrous materials.

General Office and Works. **B. F. STURTEVANT CO., Boston, Mass.**
HYDE PARK, MASS. **NEW YORK PHILADELPHIA CHICAGO LONDON** 1904

TRADE GLEANINGS

The plant of the Lister Agricultural Chemical Company at Newark, N. J., was partially destroyed by fire on Saturday. The loss was about \$75,000. It will be rebuilt at once.

The New Philadelphia Graphite Company, with offices at 419 Market street, Camden, N. J., has been incorporated with a capital stock of \$500,000, to mine graphite and other materials. The incorporators are Charles C. Spear, Cecil Spencer and John A. McPeak, all of Camden.

The tannery of the United States Leather Company at Glade Run, near Warren, Pa., was flooded by the recent rise in the Allegheny river, and many vats were filled with water, ruining the hides.

L. Buck, of Philadelphia, Pa., is building a three story addition to his packing and provision plant, to contain also office and salesroom, at Third street and Girard avenue, which will cost \$70,000, and be 196 by 95 feet.

Eureka Liquid Fertilizer Company, of Kittery, Me., has been incorporated. The capital is \$300,000. Horace Mitchell is president, and M. G. Mitchell is treasurer.

Cotton By-Products Company, of New York City, has been incorporated with \$50,000, by L. M. Monsanto, W. R. Stockbridge and R. W. Sprague, Jr.

The plant of the Taylor Compress Company at Corinth, Miss., including two cottonseed oil mills, was burned March 26. Loss, \$200,000; with \$100,000 insurance.

The abattoirs in Jersey City belonging to the Pennsylvania Railroad Company, which were burned a few months ago, will be rebuilt at once. P. Sanford Ross, of Jersey City, has the contract. The area is three and one-half acres, and extends from the Erie grain elevator on the north to Fifth street on the south, and from the North River on the east to Provost street on the west. The present cattle abattoirs will be retained, and a complete set of buildings will be erected adjoining and extending westward. The first of these will be a combined hidehouse, enginehouse and boiler room, 330 by 90 feet. A rendering house, 90 by 90 feet, will be built, together with a hog abattoir, 90 by 120 feet; a sheep abattoir, 90 by 400 feet, and a hog and sheep storage building, 90 by 250 feet. All the buildings will be sheeted with corrugated iron, and will cost, it is estimated, more than \$250,000.

Schwarzschild & Sulzberger are building a hide cellar, 90 by 165 feet, at Armourdale, Kas.

G. T. Lawrence & Gregory Company, of New York, to deal in poultry and butter and eggs, has been formed. The capital is \$75,000 and the directors G. T. Lawrence, Brooklyn; G. F. Gregory and F. D. White, New York.

Kosciusko Grocery, Meat and Provision Association, of Richmond Borough, New York City, has been incorporated by John Fabiszewski, Karol Fabiszewski and Adam Konopka, of New Brighton, N. Y.

The frame storehouse at the plant of the J. Y. Griffin Company, pork packers, at Winnipeg, Manitoba, Can., was damaged to the

extent of \$15,000 on March 29. The loss was \$11,000 on stock and \$4,000 on buildings, and the damage will be repaired at once.

Goldsboro, Pa., is negotiating for a soap factory which New York and Philadelphia capitalists are planning to build. About \$100,000 will be spent.

Wm. H. Turner will rebuild during the summer his abattoir at Avondale, Pa., which was recently burned.

Lewis J. Ball Company, Springfield, Mass., has been incorporated, to deal in provisions. The capital is \$25,000 and the promoters are Lewis J. Ball and Arthur H. Spaulding.

The Enterprise Butchers' Supply Company, of Dallas, Tex., recently organized, has applied for a charter from the State, with \$10,000 capital. Samuel Marks is president and Max Casper, secretary.

The Commercial Club, of Coffeyville, Kan., is negotiating with G. W. Howe, who represents some Chicago capitalists, for the location of a new packing plant, to cost \$50,000, in their town.

A pork packing plant will be located at Melfort, Manitoba, Can., in the near future.

PROPOSALS.

PROPOSALS FOR BEEF AND VEGETABLES.—Governor's Island, N. Y., April 1, 1905. Sealed proposals, in triplicate, will be received by commissaries of following posts, respectively, until 11 A. M., May 2, 1905, and then opened, for furnishing and delivering fresh beef required during year beginning July 1, 1905: McKinley, Preble, Williams, Me.; Constitution, N. H.; Ethan Allen, Vt.; Springfield Armory, Watertown Arsenal, Andrews, Banks, Revere, Rodman, Strong, Warren, Mass.; Adams, Greble, Mansfield, R. I.; Trumbull, Conn.; Madison and Plattsburg Barracks, Watervliet Arsenal, West Point, Hamilton, Jay, Niagara, Porter, Schuyler, Slocum, Terry Totten, Wadsworth, Wood, H. G. Wright, N. Y.; Hancock, Mott, N. J.; Allegheny and Frankford Arsenals, Pa.; Du Pont, Del.; Howard, McHenry, Washington, Md.; Washington Barracks, D. C.; Hunt, Monroe, Myer, Va.; Henry Barracks, San Juan, P. R.; and also by Commissary Post of San Juan, P. R., for delivery at San Juan of refrigerated beef required at all Porto Rican posts. Proposals will be received and opened at same time at respective points named for beef to be delivered at temperature not greater than 50 degrees Fahrenheit. Also proposals for fresh vegetables (potatoes and onions)

required during six months beginning July 1, 1905, will be received and opened at same time at Ethan Allen, Vt.; West Point, N. Y.; Monroe, Va.; Henry Barracks, San Juan, P. R. Information furnished on application to commissaries at respective places. Envelopes containing proposals must be marked "Proposals for Beef (or Vegetables) to be opened May 2, 1905," and must be addressed to commissary at place to be supplied. EDWARD E. DRAVO, Lt. Col., Chief Com'y.

April 1, 8, 15, and 22.

DEPARTMENT OF THE INTERIOR, Washington, D. C., April 1, 1905.—Sealed proposals (*in duplicate*) will be received at this Department until 2 o'clock p. m., Thursday, May 4, 1905, and will be opened immediately thereafter, for furnishing the following classes of supplies, etc., for the Department of the Interior and the Civil Service Commission during the fiscal year ending June 30, 1906, to wit: (1) for fuel and ice; (2) for furniture, carpets and other miscellaneous supplies; (3) for stationery. At the same time and place proposals will be received for such meats, groceries, dry goods, shoes, drugs, paints, hardware, fuel, lumber, chemicals, laboratory apparatus, plumbing, electrical, engraving, photographic supplies, etc., as may be required by the Government Hospital for the Insane, the Freedmen's Hospital, the Geological Survey, the Howard University, and the U. S. Capitol Building and Grounds, respectively, during the fiscal year above indicated. Proposals will also be received for the washing of towels and for the purchase during the same period of the waste paper of the Department of the Interior. *Bids must be made on Government blanks.* Forms of proposal, etc., will be furnished on application; requests for blanks must designate the classes of supplies upon which it is proposed to bid. All bidders are invited to be present at the opening. E. A. HITCHCOCK, Secretary.

April 1, 8, 15, 22.

THE

TRADE

CAN ALWAYS

GLEAN BARGAINS

BY KEEPING AN EYE ON

PAGE 48

Oil Tanks on Steel or Wooden Cars



Strictly According to Penna. R. R. Requirements.

ANY CAPACITY

ANY PURPOSE

Write Us

Warren City Tank & Boiler Works,

WARREN, O.

CONTROL OF THE BOLL WEEVIL

By W. D. Hunter, Special Agent in Charge of Boll Weevil Investigations, Bureau of Entomology, United States Department of Agriculture.

The work of the Bureau of Entomology for several years has indicated that there is not even a remote probability that the boll weevil will ever be exterminated. As a matter of fact, no injurious insect has ever been exterminated. Some species, like the Rocky Mountain locust in this country, have died out more or less on account of climatic influences, and reasonably effective methods of combating others, like the phylloxera in France, have been perfected.

Although the very large yields of cotton of former times may no longer be possible in the region now infested by the boll weevil, it is entirely feasible to produce cotton at a margin of profit that will compare favorably with that resulting from the production of most of the staple crops of the United States by following what has become generally known as the cultural method.

This method consists of the following changes and modifications of the system of cotton raising, made necessary by the boll weevil. It was originally suggested by a careful study of the life history and habits of the pest, and naturally any improvements that may eventually be made will be the result of a continuation of that study. It has now been tested successfully on a large scale by the Bureau of Entomology, as well as by many planters, during three seasons. Of greatest advantage is the reducing of the numbers of the weevils by the destruction of the plants in the fall. The advantage thus gained is followed up by bending every effort toward procuring an early crop the next season.

Suggestions for Planting.

(1) Plant early. If possible, plant seed of the varieties known to mature early, or obtain seed from as far north as possible. This recommendation is made as a suggestion for the benefit of those planters who have not taken care in the selection of the cotton seed for planting on their plantation. By far the best method for obtaining early seed is by selection in the field.

It is much better to run the risk of re-planting, which is not an expensive operation, than to have the crop delayed. The practice of some planters of making two plantings to avoid having all the work of chopping thrown into a short period is very bad policy from the boll-weevil standpoint.

Early cotton of improved varieties has yielded from two to three times as much as native cotton under the same conditions, and in many cases much more. Planted at the same time, the early varieties begin to bloom much earlier than native cotton.

Early planted fields of either native or improved varieties have almost invariably yielded twice as much as late planted ones.

The early varieties, in general having a small stalk and short tap-root, are adapted only for rich soil. They also fail to grow well in the very light, drifting sandy loams of many of the river valleys of Texas, which, in long seasons before the advent of the boll weevil, often produced the largest yields. In these situations early varieties will yield but little more than native cotton.

(2) Cultivate the fields thoroughly. The principal benefit in this comes from the influence that such a practice has upon the constant growth and consequent early maturity of the crop. Very few weevils are killed by cultivation. Much of the benefit of early planting is lost unless it is followed by thorough cultivation. In case of unavoidably delayed planting, the best course for the planter to pursue is to cultivate the fields in the most thorough manner possible. Three choppings and numerous plowings constitute the thorough system of cultivation that is made necessary by the boll weevil. The old plantation rule for the cultivation of cotton, "Once a week and once in the row," is an excellent one.

(3) Plant the rows as far apart as experience with the land indicates is feasible, and thin out the plants in the rows thoroughly. On land which in normal seasons will produce from 35 to 40 bushels of corn the rows should be 5 feet apart. Even on poor soil it is doubtful if the distance should ever be less than 4 feet.

Getting Rid of the Pests.

(4) Destroy, by plowing up, windrowing, and burning, all the cotton stalks in the fields as soon as the weevils become so numerous that practically all the fruit is being punctured. This will generally not be later than the first week in October. Merely cutting off the stalks, by means of the triangular implement used for that purpose throughout the South, is by no means as effective as plowing, because the stumps remaining give rise to sprouts which furnish food until late in the season to many weevils that would otherwise starve. The plowing, moreover, serves to place the ground in better condition for early planting the following spring. In some cases turning cattle into the fields is advisable. Aside from amounting to a practical destruction of the plants, grazing of the cotton fields furnishes considerable forage at a time when it is generally much in demand. Nevertheless, cattle should never be turned into cotton fields in which Johnson grass has become started.

Recommendations 1, 2 and 3 are all aimed toward avoiding damage by hastening the maturity of the plants, and do not involve the actual destruction of the weevils. Recommendation 4, however, reduces the numbers of the pests by destroying the very great proportion developing late in the fall, and is consequently directly remedial.

Use of Fertilizers Advised.

(5) It is known that at present fertilizers are not used to any considerable extent in cotton producing in Texas. There is, nevertheless, no doubt that they should be—not that the land is poor, but that earlier crops may be procured. At present it is sufficient to call attention to the fact that it has been the uniform experience of experiment stations and planters in the eastern part of the belt that certain fertilizers, especially those involving a large percentage of phosphoric acid, have a strong tendency toward hastening the maturity of the plants.

The recommendations above made constitute the essential steps in the cultural system of averting damage by the boll weevil. In addition to these steps, however, all operations which assist in the growth of the crop are of decided advantage in regions infested by the boll weevil. There is thus a distinction between the cultural system of averting damage by the boll weevil and the proper system of cultivation of cotton. The terms are by no means synonymous. As a matter of fact, the cultural system of averting damage by the boll weevil in some cases implies operations that would not be the proper ones in all cases for the production of the largest crop were the pest not present. This is especially the case in the early fall destruction of the plants, and also to some extent in the selection of early maturing varieties and in early planting itself.

A number of devices are possible for hastening the maturity of the crop in addition to those mentioned. For instance, thorough preparation of the land before planting is of very great importance; the packing of the soil by means of a roller immediately after the seed is planted insures rapid germination, and consequently also assists in advancing the maturity of the crop.

The Application of Fertilizers.

Necessarily the proper application of fertilizers is a complicated matter. Only the most general rules are possible for all conditions. The different soils on single farms require different compositions. Nevertheless, it can be stated that acid phosphate is the principal ingredient that the cotton plant requires, and that it has a very important function in hastening maturity. It also largely controls the action of the other essential elements, nitrogen and potash.

The work of the Southern experiment stations has shown that the nearest approach to a general formula for all soils is one that provides 10 per cent. of available phosphoric acid, 3 per cent. of ammonia and 3 per cent. of potash. This proportion is reached approximately by mixing 1,200 pounds of acid phosphate with 600 pounds of cottonseed meal and 200 pounds of kainit.

ILLEGAL HIDES AND SKINS.

A raid upon the hide and skin warehouses of Minneapolis, Minn., and other stores in that section of the country found a considerable number of illegal game skins. Among them were many deer skins and some moose hides. The dealers were promptly arrested and will be tried. Among the concerns indicted is the largest northwestern hide and fur company. The raid has created some stir and the courts will be asked to pass upon several local and border questions of shipment and storage. As the raids were by State Game Wardens the interstate commerce question protrudes; so also does the storage in transit question. For these reasons the decision of the courts will be of wide interest.

SEE THE LIST OF
BARGAINS
ON PAGE 48

For Easter



Premium
Swift's Hams and Bacon
Swift & Company U.S.A.

Fac-simile of advertisement appearing in April magazines.

THE National Provisioner

NEW YORK and CHICAGO

Published by
THE FOOD TRADE PUBLISHING CO.

(Incorporated Under the Laws of the State of New York.)

DR. J. H. SENNER....President and Editor

GENERAL OFFICES

Floor A, Produce Exchange, New York, N. Y.
Cable Address: "Sampan, New York."
Telephone, No. 5200 Broad.
GEORGE L. MCCARTHY, Business Manager.

WESTERN OFFICES

Chicago, Ill., 17 Exchange Ave., Union Stock Yards.
Telephone: Yards, 972.

Subscribers should notify us by letter before their subscriptions expire as to whether they wish to continue for another year, as all subscriptions are entered by us for that period, and we cannot recognize any notice to discontinue except by letter.

Correspondence on all subjects of practical interest to our readers is cordially invited.

Money due THE NATIONAL PROVISIONER should be paid direct to the General Office.

TERMS OF SUBSCRIPTION INVARIABLY IN ADVANCE, POSTAGE PREPAID:

United States and Canada, excepting New	
Foundland	\$3.00
All Foreign Countries in the Postal Union,	
per year (21s.) (21m.) (26fr.).....	5.00
Single or Extra Copies, each.....	.10

WHAT SPRING BRINGS

Spring is here. The fruits of winter are not yet fully known. A harrowing strike intruded itself upon the meat trade last summer. In its wake followed the severest transportation problem which the packinghouses have been called upon to face. Snow drifts and freight blocks succeeded each other in tantalizing succession. The forwarding of livestock and the distribution of factory products become not only a herculean, but an expensive task. Winter held its icy hand and snow-clogged foot upon internal commerce and produced the most expensive distributive year in the history of the food industry. Prices would not rise above normal and consumption was slow.

From this pall of winter industrial life begins to peep. The meat industry now awaits the secondary troubles of a cold ice-bound winter when the warmth of incoming spring has sufficiently thawed out the West as to permit of a peep into the chilled vales. The cattle and sheep raisers do not yet know their losses, nor the actual condition of the calf and lamb drop. The hog raiser is also measurably at sea on the pig crop. The losses of livestock from freezing and starvation are not yet known. The roundups in

the warmer latitudes indicate heavy casualties. There is the other condition which sudden spring threatens. It is the melting of the vast masses of ice and snow. Swollen streams, floods and destruction of livestock and other properties are expected.

Spring is here, but just what evils or compensations spring will bring in its wake remains to be seen. The meat trade is anxious.

RED AND WHITE MEATS

People in some hotel and food centers are eating less red meat than formerly. The red meats are beef and lamb or mutton. Some time ago the vegetarians and a section of the meat scientists assailed high meat prices with a "bust-the-trust" argument that beef was animalizing and produced a coarse and gross character in the eater. The discussion created a heavier drift to white meats than the public might suspect. Since then there has been a heavier consumption of pork, poultry and other white meats, as well as of fish. A corresponding falling off in the use of beef resulted. As a result pork ruled high all last year, chickens and veal did and do now. A hotel supply man in any large way gives an indication of the effect of the drift by stating the effect upon his own business. He says: "It used to be that our orders for the red meats were probably ten times as numerous as those for the white. They are still in a preponderance, but the proportion is not so large."

The slack trade at the beef boxes all over the country may be influenced by this old nonsensical discussion more than the trade itself might care to admit. Beef prices are the lowest of all the meats, yet beef stuff moves the slowest of all the market cuts. The English are great beef eaters. Yet English refinement is much copied by the balance of the world. The Scotch are largely white meat eaters. The average Scot is not noted for his gentleness. One could run the gamut of nations in a vain effort to establish the coarsening effect of the beef diet, and then fail.

DRAWBACK OR FREE

President Cleveland announced this doctrine nearly twenty years ago: "Free raw material needed by American factories and a tariff for revenue only upon those things made by American workmen at home." Those are not his exact words, but they are, virtually, the substance of the Cleveland doctrine of the true tariff position. The "drawback" system has, in a measure, put that view in practice. The Treasury has been steadily acting upon the principle that any imported raw material which enters into the manufacture of an article which goes back

into the channels of the export trade shall be entitled to a rebate or drawback of 99 per cent. of the duty paid.

The only difference between the existing rebate system and the Cleveland doctrine is that the article manufactured from the imported raw material must again go abroad in the finished state. The evident purpose of the administration is to give preference to and to encourage the export of manufactured products by placing the manufacturer of export goods in the virtual position of enjoying a free port for his raw materials. Hides, skins, glycerine, wool and some other articles in the meat and allied trades have been thus rebated or free listed. There have been vigorous protests both as to the practice and the abuses of it. The Treasury, however, has entered upon the policy without any apparent limitation of articles. If fair for one, it should be for all. The importer of many of such materials and products, however, desires to have absolute free entry, so as to have the eliminated duty as a margin for competitive trading at home. The rebate system is generous.

AFRICA'S TRADE HINT

South Africa gives us a needed hint, that is, her trade with us does. A fast developing young country and a decreasing food trade with America is not a proper contrast, at least for the food industry of this country. The calendar years of 1903 and 1904 show that the following foods were shipped to South Africa from America:

	1903.	1904.
Canned Beef.....	\$1,080,665	\$443,431
Hog Products	765,000	494,342
Corn	1,545,189	189,015
Wheat Flour.....	1,974,000	1,332,000

Fresh beef and cottonseed oil about held their own for the two years. British South Africa imports about \$200,000,000 worth of stuffs of all kinds. American merchants or our shipping system are out of order. This trade should be cultivated and increased.

WAR FOOD DOLDRUMS

There is ominous silence in the provision trade just now, so far as Japan and Russian inquiries are concerned. Neither belligerent is active in this market at present. The rumors of peace are not so potent as the probable recasting of plans for another campaign. It is felt that Russia must either soon enter this market for food or so draw upon the marts of Europe as to make those countries seek to replenish their stores from this quarter. In fact, the European food situation is fast rounding to in that direction. Russia will need more stores now than ever, because her home supply has been fearfully drawn upon. At present all foreign raw supply inquiries are apparently off in America.

TECHNICAL AND SCIENTIFIC

MORGAN'S RAPID PICKLING PROCESS.

The general principle applied in Prof. Emerich's process of preserving meat by acetic acid or vinegar has been adopted in the Morgan process for the rapid pickling of meat. The underlying method is that of injecting a suitable pickle by means of a pump or by natural hydraulic pressure into the large artery of the recently slaughtered animal. The pickle must be injected at such an early moment after the slaughter that it shall have the opportunity of penetrating the entire blood circulation, the finish of the process being indicated by the discharge of the pickle free from blood. Tests have shown this to occur after 7 to 8 minutes in cattle, and correspondingly less for small stock. Cattle require from 6 to 8 quarts of the pickle, hogs from 2 to 3, and sheep from 1 to 2 quarts.

The composition of the pickle is as follows: 33 parts of salt; 1.5 parts of sugar; 2 parts of saltpetre; 0.25 parts phosphoric acid, and 100 parts of boiled water.

NEW SUBSTANCES FOR TANNING.

Claim is made in a French patent for a tanning extract containing bumus obtained by the decomposition of vegetable matters. Peat, which is a suitable raw material, is first extracted with a solution of caustic soda or potash or of an alkali carbonate, and the solution obtained is afterwards acidified. A solid extract may be obtained by adding acid until precipitation occurs and dissolving the precipitate in a solution of a neutral salt, such as sodium acetate when required for use. Other sources of raw materials are waste liquors obtained in the manufacture of paper from wood and in washing flax thread.

FRENCH MUSTARD.

Lenormand's recipe for French mustard is described as follows: Flour of mustard, two pounds; fresh parsley, chervil, celery and tarragon, of each one-half ounce; garlic, one head; 12 salt anchovies, well chopped. Grind these ingredients well together and add salt, one ounce; grape juice or sugar enough to sweeten, and a sufficient quantity of water to form the mass into a thin paste by trituration in a mortar. When put into pots a red hot iron is momentarily thrust into the contents of each, and a little wine vinegar added.

SOFTENING BOILER WATERS.

It is generally admitted that feed waters for steam boilers must not contain corrosive substances nor those that form incrustations, otherwise great loss would be incurred in the extra consumption of coal, and in the destruction of the boiler plates. "Hard" water for wool scouring, whether loose or in the piece, is most uneconomical, for not only are much larger quantities of soap used than

with soft water, but the wool is damaged by deposition of earthy soaps, and great damage is caused in the subsequent dyeing operations.

For steam raising purposes, many users attempt to soften the water in the boiler, converting the latter into a water softener as well as an apparatus for the generation of steam. This practice is absolutely wrong. The water should be softened and the precipitated matter removed before putting it into the boiler. Supposing that is not possible, then the next best thing to do is to use a "boiler composition" in a rational manner. Hundreds of boiler compounds have been used for the purpose of preventing the formation of scale in boilers, many of which are useless or injurious, and a universal boiler compound said to be suitable for all waters has occasionally been the cause of serious damage, and ought to be regarded as a quack medicine sold to cure all diseases.

MOISTURE AND ASHES IN COAL.

For the burning of coals high in volatile matter, those containing more than 20 per cent of the same, it is necessary to have a hot furnace chamber. This is generally the case in a plain grate bar furnace with a fire brick arch thrown over it. For coals very high in volatile matter special furnaces are designed. One of the best methods of burning this class of fuel is in the pulverized condition. Indeed, this class of coal, which is usually cheaper than the semi-bituminous steam coal and answers the purpose fully as well, is the one generally burned in the powdered state.

Practically all coals are hygroscopic, that is, they absorb moisture on standing in the air, and if this be driven off by heating they will re-absorb it. The moisture coal contains is not merely objectionable from the fact that it takes the place of so much combustible matter, but also because this moisture or water must be raised to 212 degrees F., evaporated into steam and the steam raised to the temperature of the escaping chimney gases. This requires heat, and consequently deducts from the heating value of the coal the amount of heat necessary to convert this amount of water into steam at the temperature of the stack. That this is a considerable quantity can be imagined when it is understood that it takes 965.7 B. T. U. to evaporate one pound of water at 212 degrees F into steam.

In the same manner the loss due to ash is not simply because the ash takes the place of so much combustible matter, but that the ash has to be taken from the grate in a more or less heated condition, carrying off heat units, generated by the carbon and hydrogen, with it, that it also carries with it more or less unconsumed carbon, capable of generating heat units, and that its presence clogs up the furnace hindering complete oxidation of the carbon and hence preventing the develop-

ment of the full number of heat units of which this element is capable, as carbon burning to carbon monoxide only develops 4,400 B. T. U., against 14,540 developed on burning to CO₂.

AUSTRALIAN PATENT LAW.

Australia has now a federal patent law, and applications for patents hereafter will have to be filed and dealt with at the Central Patent Office, Rialto buildings, Melbourne. The law is to a great extent based upon the existing British system, with the notable addition that the official staff, before issuing a patent, must make an examination to ascertain whether the invention described has been previously patented or a patent applied for in any of the states composing the federation. The most important feature is that an invention can now be protected throughout the whole of the commonwealth for fourteen years by one patent at approximately one-third the cost which was formerly involved when six state patents had to be obtained (New South Wales, Victoria, South Australia, Western Australia, Tasmania, and Queensland). The state patent offices are continued as offices of record and information where specifications of applications filed will, after their acceptance, be exhibited for public information. The act insures that patents previously obtained in the several states shall remain in full force with all the rights granted.

NEW PATENTS.

784,767. Soap-pulverizing machine. Richard H. L. Talcott, Brookline, Mass. In combination a rotary abrading-cylinder, an adjacent soap-bar support, a frame or rack having upper longitudinal bars to constrain the soap bars from rising, and having transverse bars to extend between and hold the soap bars separated, a follower resting on the support behind the soap bars, and means for imparting an impelling force to the follower.

784,560. Fuel economizer. Francis W. Green, Wakefield, England. A fuel economizer, a top box or header having a plurality of holes, one or more of which are of larger diameter than the others, to permit lids for the smaller holes to be passed therethrough, and having a tubular branch with internal slots or grooves at right angles to the top box of header to permit lids for the larger of said holes to be passed into the box or header.

784,730. Boiler. James P. Blauvelt, Nyack, N. Y. In combination, a heat-chamber a steam-drum, two sets of water-tubes connected to the same at opposite sides of said drum, each set extending downwardly and crossing over to the side of said chamber opposite to the side at which they are tapped into said drum, said sets crossing each other in said chamber, the tubes of each set lying at all points one above another in the same plane, with respect to the direction of movement of the heat through said chamber, the upper tubes of one set being connected to said steam-drum at points farther up on the side of said drum than are the lower tubes of that set, and water-drums located on opposite sides of said heat-chamber, and lower down than said steam-drum, said tubes being tapped into said water-drum.

WE MAKE A SPECIALTY OF SAVING BY-PRODUCTS

Swenson's Patent Multiple Effects

Rotary Dryers and Other Special Machinery for Tank Water, Glue, Beef Extract, Brine, Etc.

AMERICAN FOUNDRY & MACHINERY CO.

944 MONADNOCK BLOCK, CHICAGO.

FOR PURCHASING DEPARTMENTS

TABER ROTARY PUMP.

The Taber rotary pump, which is manufactured by the Taber Pump Company, 83 Ellicott street, Buffalo, N. Y., has none of the annoying features of the pump usually offered for handling tankage, tallow, blood, lard, etc. The suction inlet is large and free, and its four valves are operated without springs or cams or delicate mechanism of any kind whatever. It is practically impossible to clog the Taber pump, because the valve openings are so large that they will pass anything that can get through the suction pipe. The pump has no gearing whatever, the power being applied direct to the shaft or piston.

One of the strongest features of the Taber pump is the slow speed at which it is operated, averaging but from 100 to 120 revolutions per minute, to handle from 1,000 to 1,200 pounds per minute. This pump is positive in its action, and does not depend upon speed to create a vacuum. It will pump as much, proportionately, at a rate of 50 revolutions as at 150. It discharges a steady and full steam and is constructed of so few parts that it is impossible for it to get out of order. It accomplishes the work with a small amount of power, and in a short time. It will handle any kind of fluid, hot or cold, thick or thin, acid or alkaline. Its parts are made to "template," which insures the accuracy of its operation. It requires no skilled mechanic to care for and regulate it, and once started, runs itself without attention. The pump is very durable, its wearing parts being confined to a very few highly-tempered parts which,

being self-adjusting, reduces the wear to a minimum.

The manufacturers guarantee the Taber rotary pump to be perfect in material and workmanship. The success of this pump has given rise to many inferior imitations, some of which are said to look very much like the Taber, but none of which, it is claimed, embody its many advantageous features.

A BARTLETT & SNOW CATALOGUE.

General catalogue No. 15 is the title of the new issue from the offices of The C. O. Bartlett & Snow Company, of Cleveland, O., manufacturers of high grade mill and labor saving machinery. The company has recently moved into new quarters and presents a map showing their location. The book is profusely illustrated with views of the machinery made by the firm taken from various plants where they have been installed. In addition to the wide application shown, it is announced that these machines can be adapted for all classes of similar work and the company will gladly send plans and estimates, working drawings and engineers, when necessary, to devise machines for special work, in order to save labor or time or both. Besides adequate descriptions of the machinery and the illustrations, wherever possible sizes, dimensions and prices are also given. In the back are included a number of tables of weights, measures, etc., in United States and metric systems and similar matters of great value for reference. An index containing over 300 titles, showing the diversity of machinery made, concludes the volume, which will be of interest to all who secure a copy.

COOL AIR AROUND FURNACES.

Much recent legislation looking to the comfort of employees has had to do with the maintenance of proper temperature and purity of the air in manufacturing plants. The na-

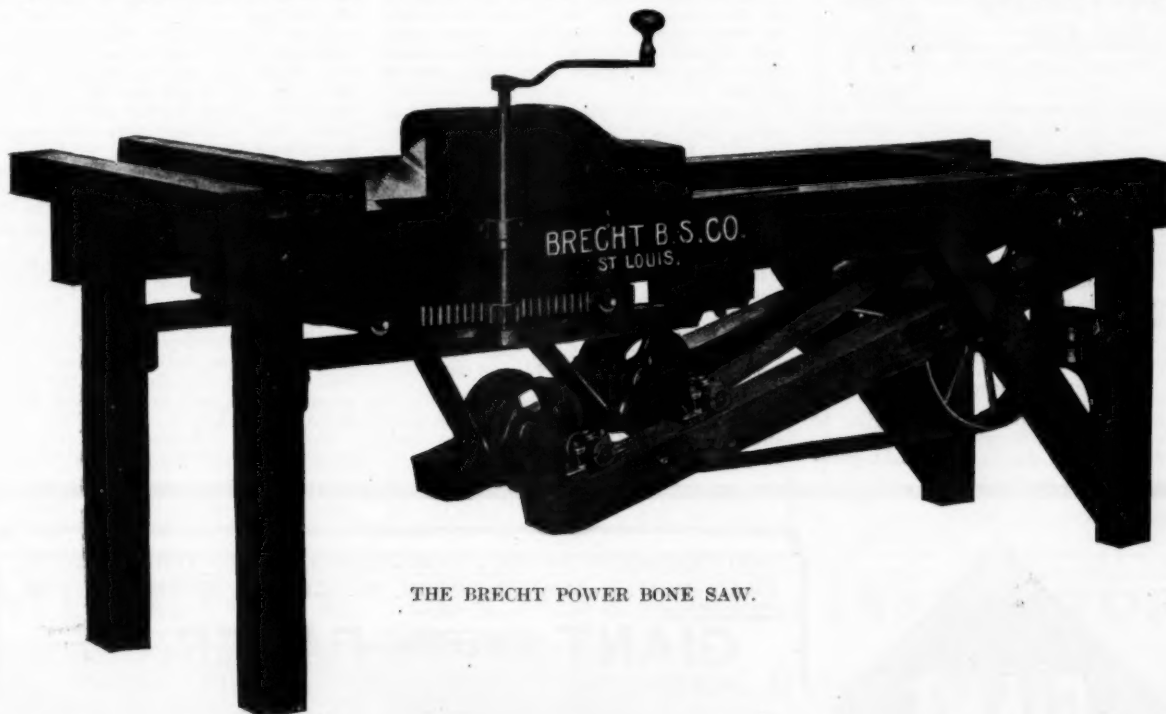
ture of the work in connection with the manufacture of iron and products therefrom especially calls for devices which shall not only add to the comfort of the workmen, but at the same time increase their output. With this object in view, the tube works department of the Reading Iron Co., Reading, Pa., has recently made a special application of two large electric fans manufactured by the B. F. Sturtevant Co., of Boston, Mass., for supplying blast for cooling around the furnaces. Similar devices are being adopted in many of the large plants where work of this character is carried on.

A POWER BONE SAW.

Progressive packers develop the utilization of their by-product material as far as they possibly can. It pays to do this rather than to sell to outside establishments. One of the most valuable of the minor by-products is bones. The illustration on this page shows the improved power bone saw, made by the Brecht Butchers' Supply Company, St. Louis, Mo., and No. 102 Pearl street, New York. It is sold to progressive packers.

In this device the saw moves forward through the bone, which is placed against the guard, and recedes automatically for the next cut. This is a great labor-saving machine. The speed of the 12-inch driving pulley is 420 revolutions per minute; saw, 18 inches in diameter; weight, 600 pounds. It is strong, cheap, durable and economical.

Business chances always open. See page 48.



THE BRECHT POWER BONE SAW.

New Light On an Old Subject.

AN INTERESTING TREATISE
ON GREASE LUBRICATION.

FREE ON REQUEST. SEND FOR IT.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

NEW CORPORATIONS.

Lake Thomas Creamery Company, of Stockton, Wis., has been chartered, with \$3,750 capital, by A. J. Kubisiak, J. F. Somers, Joseph Sharafinski and Joseph Gliaycsinski.

Raymond Co-operative Creamery Company, of Milwaukee, Wis., has been incorporated. The directors are James Fredericksen, Frank Hanson and James C. Jensen. The capital is \$5,000.

Homestead Farms Creamery Company, of New Lebanon, N. Y., has been organized with \$5,000 capital by C. S. Haight, C. B. Smith and H. M. Hewitt.

Jasper Ice and Cold Storage Company, of Jasper, Ind., has been incorporated with \$12,000. The directors are Andrew W. Ekert, Anton Habig, Andrew B. Jutt, Emil Peter and William A. Wilson.

Cleveland Light, Ice and Fuel Company, of Cleveland, La., has been incorporated with \$20,000 capital. The incorporators are R. H. Williams, W. L. Pearman and others.

Las Vegas Ice and Manufacturing Company, of Las Vegas, N. M., has been incorporated in New Jersey, with \$25,000 capital, by Louis B. Dailey, Kenneth K. McLaren and Thomas F. F. Bernet.

Basco Creamery Association, of Basco, Ill., has been formed. The capital is \$5,000 and the incorporators E. B. Simmons and Albert Naegelin.

Lone Wolf Creamery Company, of Lone Wolf, Okla., has been chartered with \$2,500 capital. The incorporators are W. W. Wallace, W. W. Woodrow, W. R. Bailey et al.

Owl's Head Creamery Company, of Enosburg Falls, Vt., has been incorporated with \$10,000 capital by local parties not named.

Preston Creamery Company, of Preston, Ia., has been chartered with \$10,000 capital by Samuel McNeil et al.

Litchfield Ice, Light and Water Company, of Frankfort, Ky., has been incorporated with \$6,500 capital. No names given.

Eastern Ice Company, of New York City, with \$5,000 capital, has been incorporated by J. C. Wallace, A. B. McNamara and I. E. Ziegler.

American Ice Securities Company, of New York City, has filed articles of incorporation at Jersey City. It will take over the stock of the American Ice Company, and may acquire the stock and bonds of other companies. The capital stock is placed at \$20,000,000, but the company may begin business with \$1,000 paid-up capital. Arthur H. Gaudet, Charles L. Fowler and Henry Bester are the incorporators named. The registered office of the company is at 15 Exchange place, Jersey City, which is the Commercial Trust building.

ICE NOTES.

Seventeen refrigerator cars belonging to the St. Louis Refrigerating Car Company were destroyed by fire in the freight yards

at St. Louis on Sunday night. The total loss is given as \$125,000.

O. McHenry, the wealthy California cattleman, who has lately gone into the meat business on a big scale, will erect a cold storage plant at Fresno, Calif., to handle the products of several retail markets he has purchased there. This is in addition to his plant at Modesto.

The Cincinnati Ice Company, the Stone Lake Ice Company, and the Arctic Ice Company of Cincinnati, O., are being merged in one corporation, under the name of the first mentioned concern.

Arguments have been heard by the Cities Committee of the Wisconsin legislature in favor of the bill authorizing the city of Milwaukee to build a municipal ice plant.

The San Jose Ice Company, of San Jose, Calif., is building an addition to its plant, 110 by 90 feet, for a new 20-ton ice machine. The present capacity is 15 tons.

Ecker & Wilson, of Henderson, Ky., have leased the ice plant of the Henderson Mining and Manufacturing Company, and will operate it in connection with their own.

An appropriation has been made by the Illinois legislature of \$20,000 for a cold storage and ice plant for the Northern Illinois Asylum at Elgin, Ill.

Joseph P. Selden, vice-consul-general of the United States at Bangkok, Siam, states a large engineering concern in Bangkok wishes to receive catalogues of ice-making machinery manufacturers.

The Karnes ice plant at Carlinville, Ill., which is just being built, was damaged by a high wind storm recently.

Robert Wachtman, of Alpena, Mich., will build a cold store at once.

L. F. Bryant & Co., of Somerset, Ky., has received a permit for the erection of an ice-making, cold and dry storage plant. Work will begin at once.

The big ice houses of Swift & Company, at 134th street and Lake Calumet, Chicago, Ill., were burned on March 24. Loss, \$140,000. About 150,000 tons of ice were ruined. There were two houses, each 250 by 500 by 28 feet.

The plant of the Fayetteville Ice Manufacturing Company, of Fayetteville, N. C., was damaged by fire recently to the extent of \$2,500.

Mr. Danziger, of Deuer, Danziger & Tessier, of New Orleans, La., purchased the plant of the Municipal Ice Company, at Water Market, South Peter and St. James streets, New Orleans, at auction recently for \$50,000. It was one of the plants which the Crescent Ice Company is disposing of. The Front Street Ice Company and the Consumers' Ice Company plants were withdrawn from the auction and will be sold later.

The People's Ice and Coal Company, of Hattiesburg, Miss., has purchased the plant and business of the Hattiesburg Ice Company.



A cold storage plant will be built in the old creamery building at Auburn, Neb., by a company now organizing for the purpose.

The Commercial Club and Board of Trade of Waterloo, Ia., is planning to give aid to a man who wants to locate an ice and cold storage plant there.

The Bester ice plant at Hagerstown, Md., will be dismantled. The land was bought after the recent auction sale by William Bester and the machinery will be shipped away.

The Youngstown Ice Company, of Youngstown, O., has bought the business and plant of the Home Supply Company, which was owned by H. K. Wick.

The ice plant at Arkadelphia, Ark., which cost \$6,000 four years ago, was sold to F. J. Carpenter recently for \$1,350.

WHERE LOSSES OCCUR IN ICE PLANTS.

By W. E. Siddons.

The general public is not at all appreciative of the losses sustained in the operation of an ice plant, seeming to believe that all the ice man has to do is turn water into ice without expense and collect therefrom exorbitant prices. "All is not gold that glitters," and while the ice business may look all right, it is a problem for a man to successfully operate a plant in the face of the losses that occur and with stiff competition in the field.

It is in the boiler room that the operator faces perhaps the most serious losses, resulting from a variety of causes, not the least of which is too much grate surface for the area of the boiler, which results in great waste of fuel. Stationary grate bars add to this loss, as much cold air is admitted to the furnace during the process of cleaning fires by hand. No one would think of buying a stove with a stationary grate, and it applies as well to your boiler furnaces. A rocker and dump grate, I think, is the most economical device used in connection with hand firing.

Bad water and consequent scale in the boilers makes another loss item which some-



WATER-SOAKED PAPER CONDUCTS HEAT SEVEN TIMES FASTER THAN WATER-SOAKED WOOD, HENCE, THE NECESSITY FOR

GIANT INSULATING PAPER,

WHICH POSITIVELY WILL NOT ABSORB MOISTURE.

There is no chance for water to get into the fibres, for every cell is filled with the water-repelling Giant Compound, manufactured by us, alone, and used in no other papers. They are air-tight. Standard for eighteen years.

MANUFACTURED SOLELY BY

THE STANDARD PAINT CO.

100 WILLIAM STREET, NEW YORK

CHICAGO OFFICES: 188-190 MADISON STREET

C. B. COMSTOCK Refrigeration Architect & Engineer

Union Stock Yards,
Herr's Island, Pittsburg, Pa.

Specialist in the **DESIGNING and BUILDING** of **PACKING HOUSES, ICE, POWER and CREAMERY PLANTS.** Upon application I will send to prospective builders a partial list of **PLANTS** I designed.

times assumes large proportions and in many cases reduces the efficiency of the boilers 25 per cent. Boilers should be kept as free from scale as possible. Poor boiler setting, and keeping them going without necessary repairs on the setting, are other features which contribute to boiler room losses. Every boiler should be bricked in tight and covered with non-conducting covering. Cracks and seams in the walls allow the easy passage of heat which should be applied to steam production. Special attention should be given to the combustion chamber to see that it is kept clear of the accumulation of fine dust and ashes that collect there and reduce the efficiency of the draft. Probably the greatest loss in the boiler room is the direct result of improper firing. Along this line I want to say that every pound of coal used under the boilers should be weighed and every operator should know just the results obtained by the fuel consumed.

It is estimated that for every eleven degrees of heat added to the feed water there is a saving of 1 per cent. in fuel. There is to-day a large percentage of the plants in operation whose feed water is going into the boilers at less than 100 degrees. The little gimcrack heaters that are usually installed with your machine are not worth the space they occupy, having only the capacity for which they are built when new. I was in a 40-ton plant in Indianapolis recently where the engineer had rigged up a pump to force muriatic acid through one of these imitation heaters, not being able to get it through by gravity, and at regular intervals he pumps the acid through in order to open it sufficiently to get his feed water to his boilers. Think of the loss that is being caused his company by this so-called heater, and I have no doubt



PURITY

Every packer wants the most economical refrigerating machinery and which can be depended upon to produce the maximum of capacity with the minimum of cost, and be the simplest and easiest operated.

The Vogt Machines may be depended upon to meet your requirements, no matter how rigid they may be. Based upon the Absorption System—the only really scientific refrigerating system—these machines produce results not otherwise possible.

We want every packer who is thinking of installing refrigerating machinery or making any changes to hear our story before he makes any decision. We like to get inquiries and to answer them.

HENRY VOGT MACHINE COMPANY
10th Street and Ormsby Ave. LOUISVILLE, KY.

many have been and are up against the same proposition. I plead guilty, I served my time and then kicked the thing out of the place and put in a heater.

A feed water heater should first heat the water to not less than 200 degrees and then be easily accessible for the purpose of cleaning. Another thing about feed water; if you will take your feed water from your steam condensers and pass it through a coke box you will be surprised at the difference in the amount of scale in your boilers.

It costs good money and plenty of it to make steam, and every steam leak in the plant means lost energy and larger fuel expense. Whenever you have a leak or when packing goes bad you can be sure those leaks are not going to become any smaller, and they should have instant attention. Each separate leak may not assume large proportions when taken singly, but put them all together and the volume of steam going to waste will astonish you, and if you could see the pile of coal that has been consumed

W. H. BOWER, General Manager, GEORGE B. BOWER, Secretary and Treasurer.

THE AMMONIA CO. OF PHILADELPHIA PHILADELPHIA, PA.

ANHYDROUS



STRICTLY PURE AND DRY

FOR REFRIGERATING AND
ICE MAKING

WRITE FOR BOOKLET.

B. P.—30° Fah.

AGENTS.

New York City, 100 William St., Roessler & Hasselacher Chemical Co.
Boston, 45 Kilby St., Charles P. Duffee.
Buffalo, Seneca St., Keystone Warehouse Co.
Pittsburg, Pennsylvania Transfer Co., Ltd.
Baltimore, 1348 Block St., Baltimore Chrome Works.
Washington, 1227 Pennsylvania Ave., Littlefield, Alvord & Co.
Norfolk, The Nottingham & Wrenn Co.
Atlanta, Century Building, Southern Power-Supply Co.
Jacksonville, Atlantic Coast Line Ave., S. B. W. Acosta.
New Orleans, Magazine & Common Sts., Finlay, Dicks & Co., Ltd.
Cleveland, The Cleveland Storage Co.
Cincinnati, 9 East Pearl St., C. P. Calvert.
Chicago, 16 N. Clark St., F. C. Schapper.
Milwaukee, 136 W. Water St., Central Warehouse.
Kansas City, 717 Delaware St., O. A. Brown Company.
Omaha, 1013 Leavenworth St., Wm. M. Bushman.
Liverpool, Adelphi Bank Chambers, Peter R. McQuile & Son.

SHEET CORK INSULATION

—FOR—

CHILLING and COLD STORAGE ROOMS

SEND FOR SAMPLES, CIRCULARS, ETC.

The Nonpareil Cork Works, 80 HUDSON STREET
NEW YORK, N. Y.

MINERAL WOOL MOST EFFECTIVE INSULATOR



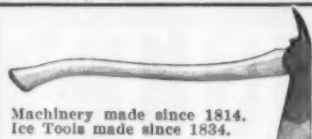
FOR COLD STORAGE, Etc.

CHEAP AND EASILY APPLIED

SAMPLES FREE

UNITED STATES MINERAL WOOL CO.

143 Liberty Street, New York City



Machinery made since 1814.
Ice Tools made since 1834.

SHOPS

Arlington, Mass.
Hudson, N. Y.



WOOD'S ICE TOOLS || GIFFORD'S ICE ELEVATORS AND CONVEYORS
GIFFORD-WOOD CO.

Successor to

WM. T. WOOD & CO., Arlington, Mass., and GIFFORD BROS., Hudson, N. Y.



General Office

HUDSON, N. Y.

in the production of the steam wasted at the season's end, there would never be another leak in the plant.

In season, when you are rushed to supply the demand that hot weather makes for your product, a shut down is the cause of serious loss, and every effort should be applied to prevent the stopping of the machine. An auxiliary boiler feed pump, two sources of water supply, a battery of boilers that is double the required horse-power and every part of your equipment amply large for the required duty saves many a dollar that is otherwise lost by numerous shut downs.

And right here I want to say a word regarding the auxiliaries furnished by the ice machine companies. As a rule, the boilers, pumps, heaters, tanks, air compressors, etc., that are furnished are only just large enough to do the duty required of them when absolutely new and when the thirty days' test run is made by the erecting engineer, who is instructed to get the required tonnage from the plant installed, and incidentally your acceptance of it. When this test run is completed and the plant handed over to your engineer, to operate he gradually finds that everything has to be run to death to get the capacity out of it, and the life of your plant is shortened thereby at least one-fourth. In addition, you are at an eternal expense in keeping the equipment repaired.

We wore out three complete sets of gear

on three pumps furnished by the company that installed our machine, and then we woke up and put in pumps that were amply large enough for the requirements. We also had in service a 10 x 10 x 10 straight-line air compressor that, when new, actually required 35 horse-power of steam to operate and from which we only received 25 horse-power of duty, thus losing 10 horse-power on a new machine. These figures were given us by the agent of the builders of the machine who were trying to sell us a new one to take its place, and this new machine was guaranteed to deliver 27 horsepower of duty and required but 25 horse-power of steam. He said to us further that these pumps and air compressors which were installed for us were built to supply a demand made on them by ice machine companies and others for the cheapest type of machine they were able to furnish in large lots. With an equipment of this kind it is not possible for the operator to get his rated capacity from the plant, and while his operating expense is no less, but really greater on account of lost energy, his capacity is lessened and he has from two to five tons per day less to sell when there is a demand for it, and this comes off the profit end of the business, too. Still, his pay roll and his fuel expense is as great as it would be were he making over his rated capacity.

Before leaving the subject of auxiliaries, I

want to say that every one of us that is operating duplex steam pumps is spending money that we should save. I am told that a duplex pump requires about sixty times the steam that a Corliss engine of the same horse-power uses, and if this is the case, we could install power pumps and operate them with an ordinary slide valve engine at a great saving of power.

I have found in almost every plant which I have visited that the condensed water is handled between the condensers and the reboiler by what is termed a sweet-water pump. That is, the water is taken by gravity from the steam condensers to a small receiving tank and then is pumped up to the reboiler, from which it goes by gravity to the forecooler and the storage tank. Our plant was installed with this method of handling the condensed water and the operation of the entire plant depended on the operation of that little sweetwater pump which was several times smaller than it should have been.

(Concluded on page 30.)

**WOOD and IRON BOUND HAM and LARD
TIERCES and PORK BARRELS
Hoops and Box Straps
C. G. WASHBURN & CO.
169 Jackson Boulevard, Chicago**

GUARANTEED LARGEST CIRCULATION IN THE ICE AND REFRIGERATING TRADES.

COLD STORAGE

ICE TRADE JOURNAL

CONTENTS

Department Store Refrigeration. By J. C. Gossamer.....	12
Refrigeration in Australia. By C. C. Lane.....	21
Water and its Relation to Plant Ice. By Charles D. Macmillan.....	25
What the Trade Aboard is Doing.....	25
The Refrigerating Engineer's Pocket Manual. By Oswald Gault.....	27
Air Cooling in Textiles.....	27
Notes on Lenses, Film, Etc.....	31
Cooling by Natural Ice.....	40
News from the Pacific Coast.....	54
Queries and Answers.....	55
Natural Ice.....	61
Notes of New Plants and Additions.....	61
New Corporations.....	61
Corporations Heavy.....	61
Stock Exchange.....	61
Legal Lines.....	61
Natural Ice Market.....	61
Fire and Accident Record.....	61
Refrigerating Patents.....	61
to the Trade.....	61
Obituary.....	61
Editorial.....	61

NEW YORK, JUNE, 1904.
Sixty a Year.
ICE TRADE JOURNAL, Vol. XXVII—No. 11.
COLD STORAGE, Vol. XL—No. 6.

ALPHABETICAL INDEX TO ADVERTISEMENTS, PAGE 10.

Convention Number

March 2 1905

CONTENTS

The Conventions.
Meeting of Middle States Ice Producers' Exchange.
Meeting of Ohio and Michigan Wholesalers.
Meeting of Indiana Manufacturers' Association.
Meeting of Southern Ice Exchange.
Meeting of Connecticut Dealers' Association.
Cheese Paraffining Apparatus.
Improved Methods of Firing. By Henry Jackson.

Natural Ice, Hudson River Harvest for 1905, Queries and Answers, News of New Plants and Additions, News from the Pacific Coast, New Corporations, Open Correspondence, Icicle Drippings, Recent Patents, In the Trade, Effects of a Tornado, Fires and Accidents, Natural Ice Notes, In Legal Lines, Among the Maltsters, Obituary, Editorial.

SUBSCRIPTION PRICE, \$2.00 A YEAR

Produce Exchange • New York

PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the bbl. except lard, which is quoted by the cwt. in tcs., pork and beef by the bbl. or tierce and hogs by the cwt.

Light Fluctuations in Prices—Tame Undertone—Dull Speculation—Liberal Consignments to Europe—Full Supplies on Sale—Only Fairly Active Cash Demands—Sympathetic Action with Lower Corn Prices—Hog Receipts Somewhat Beyond Trade Expectations—Easier Prices for Them.

Increasing speculation in hog products is had with difficulty and comes slowly. In fact, the slowness in speculation, particularly on the part of the outsiders, is of a somewhat confusing order to some calculations concerning it, and where the expectations had been of higher prices. There does not seem to be any desire shown on the part of the commission houses for "long" deals, and this expresses the sentiment of the outsiders of marked cautiousness in speculation.

It would be hard, of course, to maintain an advance in the prices of the products under the current temper of speculative buyers. The occasional hardening of prices recently had lacked outside support, and it had been going along wholly through determined efforts of the packers.

The market has had additionally antagonistic features for the week in the lower prices for corn. Indeed, the more recent easier prices for the hog products have been occasioned mainly by the grain situation.

The fine weather over the West prompts a freer marketing of the corn, while the surplus supply of it coming upon the market is for the present to its disadvantage as concerns the speculative position for the grain, while the general weakness in both wheat and corn was spreading to the hog products markets.

But no great change takes place at any time to the prices of the hog products mar-

kets. Indeed, the hog products markets have been a remarkable exhibit for many weeks in their narrow variations, and which has left them practically unchanged from the trading basis that existed several weeks since.

It may be said that the products markets are at present rather favoring buyers, and that there is less hope than had been held a couple of weeks since of rejuvenated conditions in them, especially as concerns the speculative temper.

A few "shorts" have been a little exercised this week, more particularly for pork and ribs; and their little demand helped to tone the market occasionally. The packers have been most determined in holding lard, although its market condition at the present writing is a slack one.

In addition to the indicated influences upon the market, or from the lower grain prices and indifferent outside speculation, is the fact that the hog supplies have been at the packing points somewhat larger than it had expected they would be in this busy period of farm work.

Not only that the late fairly steady prices for the hogs have tended to start them out of farmers' hands, but, as well, the remarkably favorable weather conditions for moving the hogs forward has, in part, caused the larger supplies of them at the packing points.

The hog supplies at the packing points have grown in that degree that their prices just now are weakening a little.

But in the previous week the hog prices at Chicago were the best had since October, or as they averaged \$5.37 per 100 pounds, and they were then at a little more money than had for them a year ago for the corresponding week, although \$2 per 100 pounds lower than the prices made two years ago.

The average weight of the hogs marketed shows up very well, considering the late larger volume of them, and implies that there is a pretty fair supply of the hogs back in farmers' hands. Thus, last week's average weight of the hogs at Chicago was 213 pounds, and it compares with the previous week's average of 213 pounds, and in 1904, same time, 204 pounds, and 1903, 218 pounds.

Because of the break in prices of wheat and corn this week some of the bears in those products spread their selling operations to the provision list, and they were in new deals on the "short" side, in some degree, at least, and not for the purpose of closing out contracts.

The export demands for the hog products continue of a restricted character, and necessarily so on the liberal offerings on the other side of the consigned lots, which are there at steadily favorable prices to buyers by relation with the open market rates here.

The movements to Europe of lard especially were liberal last week, or fully 18,112,692 pounds, of which 6,681,058 pounds were to the United Kingdom markets and 9,889,498 pounds to the Continent. The exports of lard for the season thus far from September 1 are now within 14,000,000 pounds of those for the corresponding time of the previous year, but they are even closer than that of meats, the shipments of which from September 1 are within 3,167,000 pounds of those of the year before. The United Kingdom markets are steadily taking the greater proportion of the meats sent out, and got last week 9,338,810 pounds out of the total exports of 10,738,576 pounds.

The home demands for meats are a little more urgent, but for lard they are somewhat quieter than before for some time. Consid-

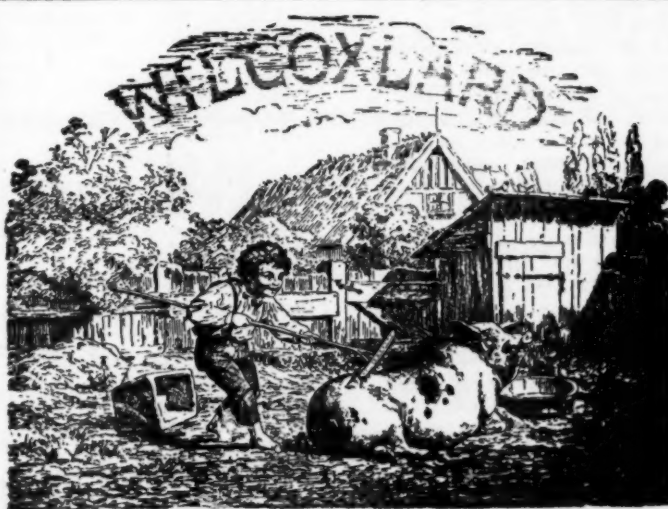
THE W. J. WILCOX

LARD AND REFINING COMPANY

NEW YORK
OFFICES: 27 Beaver Street

Refiners of the Celebrated
Wilcox and Globe Brand

PURE
REFINED
LARD



TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—There has been a very regular market for the week, while the sales have shown essentially the line of prices that prevailed on trading two weeks since, although that the tone of the market is rather firmer. Moreover, the supplies of prime tallow are now steadily taken up, not only at the Eastern markets but more generally than before latterly over the West.

The lull in demands of the previous week has given way, and there is now some little vitality to trading. There had been needed only the ordinary demand to clean up such accumulations of prime grades as had been made latterly. The under qualities are not participating in the improved tones of demands and prices.

There is no question but that the cattle supplies are showing in somewhat better condition, yet that they are not up to expectations as to quality, and while a little more fat is being produced than before latterly, yet that there is not enough of it to affect the market position in favor of buyers, and that the general supplies of fat are a disappointment.

Although corn prices had suffered some decline in the recent market situation for the grain, yet it is clear that the prices of the grain are yet too high for full free feeding of it, as the prices for it are arranged alongside of those of livestock. However large the cattle, as well as the hog supplies, are for this season, there is just so much loss of fat from expectations concerning its season's supplies by the condition of the cattle marketed.

There is no question but that there is an abundance of hog fat, however less of it than had been considered possible from the extent of the corn and pig supplies, but there is a marked trade disappointment as to the outcome of the beef fat supplies.

Hope had been held by the trade ever since the turn of the year that cattle fat supplies would become steadily larger, but the expected increased supplies have not materialized; the talk now is of soon enlarging supplies of the fat, and as it has been, as indicated, for some weeks.

There is no question but that consumption of tallow for the present is well alongside of the productions of it, and that as demands from the consumers are largely in the interest of the soapmakers that if there was the ordinary demands from the compound makers, as well, that the supplies of the tallow would be insufficient for needs.

The late fine weather is opening up the demands for manufactured goods; besides it admits of easier moving about of supplies of the raw materials; and these features have prompted the soapmakers' demands for the tallow.

Naturally as much fat as possible is turned

to the make of oleo stearine at its late substantially higher and steadily hardening prices and because of the very good prices that are made for the oil, there is some sympathetic feeling upon the tallow market from the stearine and oil position.

But however steadier the tallow markets are over the country, by reason of the indicated influences, it is not possible, for the present, at least, to secure advanced prices, since soapmakers, while readier buyers, are so only as they can get the supplies of tallow upon the basis of late sales.

The London sale on Wednesday showed unchanged prices, with 1,000 casks offered, and less than one-quarter of it sold.

There was a sale in New York of 150 hhds. city at 4½c., and this price is now bid and declined.

It would be hard to buy city in tierces under 4 15-16@5c., and 4½c. would be paid, but there is not much demand for the city tierced lots.

The make of edible tallow is very moderate, and the demand cleans it up very well. Sales of 250 tierces at 5½@5½c., with for city made 5½c. bid.

Country made tallow is arriving a little more freely, and soapmakers' attention is a little stronger on its supplies, with the prices that were bid slowly in the previous week for them now rather promptly paid. Sales of 325,000 pounds country made, in lots, at 4½@4½c., as to quality, to 5½c. for kettle.

The Western markets have had fair sales upon the indicated steadier market, with prime packers at Chicago quoted at 5½@5½c., and city renderers at 4½@4½c., choice edible at 5½@5½c., ordinary do at 5½@5½c.

OLEO STEARINE.—There has been a further advance upon the Eastern markets by sales of at least ¼c., with 7½c. paid, and 7½c. is now asked, with 7½c. bid New York, where 360,000 pounds have been sold at 7½c., while in Chicago 7½c. bid, where 300,000 pounds sold at 7½c.

The confidence of sellers has been imparted through the latterly steady considerable taking up of supplies, with the fact that the fat supplies are not as large as had been hoped they would be, as the cattle supplies are not as large or in as good condition as the trade had expected concerning them for this time of the year.

The consumption of the stearine had increased latterly, as the compound lard business had shown some improvement. The supplies of the stearine upon our Eastern markets have become very moderate.

LARD STEARINE.—It is somewhat difficult to buy choice lots under 7½c., but there have been other lots had at 7½c., with some increase of demand from the Continent lard

people. Sales of 100 tierces at 7½c., and 100 tierces, September delivery, at 8c.

COTTONSEED STEARINE.—There are steady movements of supplies to Europe, and the production does not accumulate. Quoted at about 30@32c. per gallon in a nominal way.

GREASE.—The foreign markets are taking supplies a little more freely, chiefly of stock to be had at and around 3½c. The soapmakers are very moderate buyers, and the pressers are doing little. Yellow quoted at 3½@4c.; house at 3½@4c., and bone at 3½@4½c.; choice white at 5½@5½c.; ordinary lots of "A" white at 4½c., and "B" white, 4½c.

GREASE STEARINE.—There are steady wants of white, which is hard to obtain under 5c. But the yellow grade is slow and rather nominal at about 4½c., and to 4½c.

OLEO OIL.—The supplies of choice are closely taken up, as the production is not an especially large one. The market has a firm tone. Rotterdam quotes at 57@58 florins, New York, at 9½c. for prime, 6¼@6½c. for medium and 5½c. for low grade.

COCOANUT OIL.—There is no especial life to trading, and the market has a slightly unsettled and somewhat irregular look. Ceylon, spot, 6½c., and April to June shipments at 6¼@6½c.; Cochin, spot, 7¼@7½c.; do., April to June shipments at 6½@7c.

PALM OIL.—Trading is confined to small lots, and the market is somewhat unsettled, with small stocks. Red quoted at 5¼c., and Lagos at 5½c.

NEATSFOOT OIL.—Trading is confined to small lots, with prices fairly steady; 20 coid test at 97@98c.; 30 do., at 86c., and prime at 48@50c.; 40 test at 68@69c.

LARD OIL.—The trading is in small lots, with prices fairly steady. Prime quoted at 58@60c.

CORN OIL.—The exporters are doing little, but there is a fair inquiry from the home trade. Car lots quoted at \$3.55@3.60.

Vaporised Fuller's Earth

Sulphur which Injures Oils has been
Extracted by New Process
HY. NEWSON GARRETT, C.E.
Sydney Place, Bath, England
Finest Fuller's Earth in the World. Boiled 100
Mesh, Uniform, Economical
NO AGENTS

Fertilizer Dryers.

Rendering Tanks and Kettles.
BONE MILLS.
THE C. O. BARTLETT & SNOW CO.
CLEVELAND, OHIO.

Prime Green Olive Oil Foots

UNCLE SAM BRAND

QUALITY, THE SUPREME TEST

They cost a little more than ordinary Foots but if you buy "UNCLE SAM BRAND" you will be so pleased with the results that you will forget the price and always remember the quality

Welch, Holme & Clark Co.,

**383 WEST STREET
New York City**

WHERE LOSSES OCCUR IN ICE PLANTS.

(Concluded from page 26.)

We stood it for some time, but the stops on account of it became so frequent that we finally threw it out, installing new condensers, putting them above the roof of our building and taking the water direct from them to the reboiler by gravity, having the condensers and the reboiler so close together that the water is almost at the boiling point when it goes into the reboiler and thence by gravity through the forecooler and into the storage tank. Thus we save the steam, oil and packing required to operate the pump, have one piece of machinery less to repair and look after and save in the amount of steam used in reboiling by having the water so near the boiling point when it goes into the reboiler.

In nearly all of the recently installed plants there is a brine agitator in service, but to those who are operating without an agitator I would say put one in and you will gain materially, as it gives you an even temperature all over the tank, will shorten the time required to freeze and your ice will be of more uniform quality.

Plenty of ammonia in your system and the occasional addition of a flask to strengthen your charge will save much energy lost in trying to operate with a light charge. Every operator should make a study of expansion and know that his ammonia is working in each coil with uniformity, thus giving equal refrigeration all over the tank. Ammonia gas does not differ from other gases in that it seeks the easiest way out and that coil in your tank which allows the easiest flow of the gas will always be carrying the greatest volume unless you choke it. Study the expansion system and learn just where your ammonia is going, and make an effort to regulate your expansion valves so that you can equalize the work of each coil.

No surer method of insulation could be used than to allow your brine to become weak, for with weak solution ice forms on your coils and your ammonia is working to no advantage.

Oil-saving devices are being extensively used, many plants being equipped with them. A catch basin in your floor and the draining of all oil that has been once used into the basin and then filtered for subsequent use will result in saving from 25 to 40 per cent. in your oil consumption.

Our chief engineer had occasion to visit Maysville, Ky., this winter, and in a conversation with the engineer at the Maysville plant brought out the information that the clearance on the compressors of their 15-ton machine had not been observed in eight years. I think the clearance on the compressors is an important matter, for if your clearance is too great your compressors are reduced in capacity and energy is being applied which is absolutely lost.

We take a card from our Corliss engine twice a year, so that we may know that our valves are working properly. I visited a plant recently where the machine was running a speed of 90 R. P. M. and the Corliss

valves, instead of unhooking as they should, were unhooking after the stroke was almost completed, so that all the advantage of compression of steam in the cylinder was completely lost and the engineer might as well have been operating a slide valve engine as far as steam economy was concerned. There is another feature in the easy working and steam-saving qualifications of your engine, and that is to have so much steam condenser that every ounce of steam is condensed rapidly, thereby removing the back pressure from your exhaust line and creating as nearly as possible a vacuum in the line. This makes your engine a type of condensing engine, and you acquire almost all the benefits which accrue in the operation of a condensing engine.

I have endeavored to point out where the losses may and do occur in the operation of an ice plant, but after it is all said, I wish to impress the fact that there should be no loss and that those losses which occur and recur are directly traceable to two causes—carelessness and ignorance. With a perfectly equipped plant and a bright fellow at the head of it who takes up the lost motion, not simply of his machine, but of its operating force, and who takes a genuine delight in maintaining a high standard of excellence, there should be no loss other than the general wear and tear and absolutely unavoidable accidents.

Analyze your by-product material and find out what there is in it. Stillwell-Provisioner Laboratory, 36 Gold street, New York.

Louisville Cotton Oil Co.,

REFINERS OF COTTON OIL

ALSO FIRST, IF NOT ONLY

LICENSED AND BONDED

COTTON SEED OIL WAREHOUSE

IN UNITED STATES

Brings PRODUCERS, DEALERS and CONSUMERS of COTTON SEED OIL in closer touch with each other than ever before and at less cost than by any other method. It also enables the speculatively inclined capitalist to buy and sell Crude and Refined Cotton Seed Oil without Mill or Refinery, working on his own judgment entirely.

Write for Full Information

SPECIAL BRANDS:

"LOUISVILLE"

Choice Butter Oil.

"PROGRESS"

Extra Butter Oil.

"COTTOPALM"

Special Cooking Oil.

"PROGRESS"

Choice Cooking Oil.

"IDEAL"

"ROYAL"

"ACIDITY"

Prime Summer White. Prime Summer Yellow. Summer White Soap Oil.

Made Only by

LOUISVILLE COTTON OIL CO.,

LOUISVILLE,
KENTUCKY

CODES USED: Private, Twentieth Century, A. B. C.
4th Edition Western Union and Lieber.

CABLE ADDRESS
"COTTON OIL," Louisville.

MARKET FOR AMERICAN OLEO.

It is reported by United States Consular agents that the island of Malta is a favorable market for American butter and oleo. Consul Grout, of Valetta, states that most of the margarine consumed there comes from Holland, and the American product would find a ready market. Local butter manufacture is limited, most of it being made from goat's milk and unsalted. There is direct steamer communication between New York and Malta, and no duty is charged on these products. Consul Grout would like to have American firms communicate with him.

AUSTRALIAN WOOL TO AMERICA.

In comparison with former years the exports of wool this season from Australia to the United States show a very large increase, the gain over last season being over 100 per cent. The number of bales shipped to the United States from the ports of Australia from the beginning of the season to January 20 was as follows: Melbourne, 50,074; Sydney, 19,555; Brisbane, 188; Adelaide, 161; total, 69,978 bales, valued at nearly \$6,000,000. It is anticipated that by the end of the season 75,000 bales will have been shipped to the United States.

ANTINONNIN

Hygienic Protective,
Deodorizer, Disinfectant,
Parasiticide.

Prevents the growth and propagation of fungi, mildew, dry-rot, etc., and all destructive and deleterious fungi in buildings and human habitations.

Cellars and walls of Packing and Slaughterhouses, etc., are washed with watery solutions 1:100, by which means fungi are destroyed and the formation of mold is effectually prevented.

It keeps walls and vaults free from dampness, removes unwholesome odors from gatters, stables, closets, prevents wood-work from rotting or becoming moldy.

Antinonnin is POSITIVELY DEVOID OF ALL ODOR; it is NOT VOLATILE, like most anti-parasitic remedies; it is SOLUBLE IN WATER, and READILY PENETRATES wood.

It is generally employed in the form of a solution of one pound Antinonnin to from five to fifteen gallons of water or whitewash.

FOR LITERATURE AND SAMPLES APPLY TO

EDWARD H. BUEHLER,
134 Lake St., Chicago, Ill.
OCCIDENTAL SUPPLY CO.,
131 Second St., San Francisco, Cal.

FARBENFABRIKEN OF ELBERFELD CO.

SELLING AGENTS FOR THE U. S.

P. O. BOX 2660.

40 STONE ST., NEW YORK

COTTONSEED OIL

WEEKLY REVIEW

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mills Superintendents' Association of the United States.

Tamer Situations and Easier Prices on the Cotton Crop News Followed by Higher Prices on Large Sales of Crude.

The government cotton crop report of the amount ginned, and implying that the cotton crop for this last year was 13,584,457 bales, weakened the oil market a trifle when it came out on Tuesday, and brought about further concession on the succeeding day's trading. After the weakness of Tuesday and Wednesday, and the then attempted hammering of the market, it opened on Thursday with considerable speculative demand, while very soon there was an advance of fully $\frac{3}{4}$ c. per gallon, and based in part upon large sales of crude at better prices. The mills were then becoming decidedly firmer in their asking prices of crude after making sales for the week of fully 50,000 bbls. crude. Within a fortnight the mills have sold fully 150,000 barrels crude, in Texas, Valley and all through the Southeast. Most confidence is shown on the September option, to which there is a good deal of switching, and which would seem to be in line with the opinion that we had expressed for a couple of weeks concerning the probabilities of the future of the market to more firmness, however it may be manipulated meanwhile. The trade is talking a probable 30c. price for the September delivery of prime yellow in New York.

The cotton crop has proved to be well up to any expectations concerning its large volume, and, indeed, it is somewhat beyond many opinions concerning it weeks since when the government preliminary figures had set the trade guessing about a 13,000,000 bale crop.

The statement of the cotton crop implies that it is 3,538,861 bales, of 500 pounds gross weight, greater than that of the previous year.

There is now no question but that a cotton oil production could have been made well up

to the largest expectations concerning it, as they were held early in the season, if the products market prices had permitted paying inducing prices for the seed to bring it forward, even admitting that the seed turned out was in very many sections less per bale of lint than usually counted upon. In other words the cotton crop has proved of that prodigious volume that seed supplies could have been had for an enormous cotton oil production if market conditions for seed and its products, as well as speculation, had permitted better prices for the seed in the period of the season when it had been possible to secure enormous quantities of it.

There are some traders, even now, who believe that the oil production for the season will be an enormous one, and they base their opinion upon the fact that considerable seed can still be had in the Southeast sections, although that these Southeast sections would have to be practically depended upon for the supplies of it. Moreover, they believe that a large quantity of seed will be released after the planting season is over, and that the mills are likely to remain open to a later period of the season than usual to crush it. But we see no reason, as yet, at least, to change our recently expressed opinion that the oil production will be only moderately larger than that of last year, or at least that it is not likely to reach near the early in the season possibilities concerning it.

The time is growing very short in which it would be possible to get the seed supplies, although there are, of course, some sections where the seed is kept dry and in good condition for a longer time than in many other sections.

The current conditions of the oil market are against offering prices for the seed that would bring it out, although, of course, the cake market is in very good shape under the active season's export demands for it.

Moreover, the temper of trading in buying the oil has not permitted the mills to clean up their holdings of crude oil sufficiently to warrant their buying seed much more freely than they have been doing latterly, even with the possibility that the holders of the seed would be willing to let it go for less money than they had been disposed to accept latterly.

The mills have been left with too much crude oil on their hands at a later period of the season than usual, so that the conservative buying of it by the home consumers, and which has prevented more than an ordinary amount of strength to its prices, is likely to work to their disadvantage later on in the season and because of the consequent restriction of the oil productions, and which should make their statistical position a factor before the season closes.

If there had been an ordinary amount of vigor to the oil market a little while since, which would probably have eventuated with the ordinary disposition of the home consumers to take up supplies, it would have been possible to have touched at that time a 30c. market for the refined at the seaboard and relative prices for the crude at the mills; and in consideration of the very satisfactory prices that have been made for the season for the oil meal on needs of Europe, there would have been then no question of market prices for seed that would have led to a much more extensive marketing of it. As it looks now, the modified, from expectations, production of the oil should give a better situation of market prices as the season is advanced, whatever weakness to it takes place in the nearer future, and the probabilities are that the market will be got down more before it turns to permanently firmer situations. The fact that there has been more of a disposition to sell the oil, since the announcement of the cotton ginner's report, with the consequent easier prices for it, is more from the nervousness of

THE AMERICAN COTTON OIL CO.

CABLE ADDRESS "AMOOTAIL," NEW YORK

COTTONSEED PRODUCTS

OIL, CAKE, MEAL, LINTERS, ASHES, HULLS



GOLD MEDALS
AWARDED
CHICAGO, 1893
PARIS, 1900

AMERICAN COTTON OIL CO.
27 Beaver Street, New York City

GOLD MEDALS
AWARDED
BUFFALO, 1901
CHARLESTON, 1902

possibilities concerning the extent of the oil production rather than from actual features. The trade, some portion of it, perhaps the speculative end of it, feels, or claims to feel, that with such an enormous showing of the cotton crop that there must be an oil production of prodigious volume even in the face of the restricted, as at present, new buying of the seed; or, in other words, they assert that somehow at some time that the seed will be had liberally, before the season is completely over, even if there are no signs at present that it will be materially further released.

While there is a good deal of seed arriving at the Southeast sections, yet it is still largely through old buying, orders, while new buying is of a conservative order; but the holders of the seed are "not climbing over each other to sell the seed," despite the announced extent of the cotton crop.

The fact that there has been much more desire lately to sell the cotton and that the interior movements of it are becoming quite liberal is hardly likely to develop, as well in connection with the seed supplies, since the seed has been, and is, freely used for fertilizing purposes, and more freely than ever before substituted in use for other fertilizers. Moreover, if seed is to be had by the mills more freely than at present it must be had now in a short time.

Those people in the trade who have opposite opinions to those just expressed claim that the seed will yet be had, that there is enough of it left in the Southeast to make an enormous oil production, even conceding the much freer use of it this season for fertilizing purposes. Besides they say, "look at the movements to sell ahead by some of the big people, and, as well, by others who usually get orders to trade from the South." And again, "that the mills will keep the producing season to a later period than usual this year if there is any possibility of getting the seed supplies"; they maintain as well that the holders of the seed will finally take any prices for their surplus supplies of it rather than be just so much out of pocket by neglecting the marketing of it.

Of course, it is an unusual season in many respects, and one man's manner of reasoning concerning its developments may be as good as that of another. And in view of the irregular opinions concerning the possibilities of the oil market it is just as well to express them, as they are heard all around.

Even in the matter of the coming season's cotton acreage there are variable ideas that it will and will not be reduced. The extent of this season's cotton acreage will, of course, be a factor of importance before the season for the current year's oil marketing is closed. It seems to us that there must necessarily be an important reduction in the cotton acreage this season, and for reasons referred to

in our previous reviews of the oil market.

It would seem to be altogether probable that the land that had been given over last year to the cultivation of cotton, from several other products, because of the former year's high prices of cotton, would this year be turned away from cotton. And, as it looks now, that more than 1,000,000 bales cotton will be held back by the planters, some of them, at least, will plant less cotton this season.

Of course, some trade arguments, as used, are all right in a restricted sense that the people accustomed to raise cotton and nothing else will raise cotton, be the prices high or low for it in any season; nevertheless, that there was a sufficient number of the people at the South who put their ground to cotton last year from other uses, that are likely to drift back this year to diverse uses of their land; and we think that the whole sentiment means an important decrease this season in the cotton acreage.

Concerning the crude oil holdings by the mills, there is no question but that there has been this week readier sellers of the supplies, and that they have had tamer bids for them. At the close of the previous week 20c. was bid by speculators for crude, in tanks, at the Southeast mills, but this week there have been sellers at 19½c.

As the season advances to warmer weather the holding of crude oil of course runs some risk of loss of quality and in this respect the mills are at a slight disadvantage against efforts that are made for weaker prices. But the difference in the prices of off oil and prime oil would be a small matter if there was any chance of nearby better market conditions for the oil. But improved market conditions look extremely doubtful for the near future.

Indeed, it is hardly likely that the oil market will have a good, clear outlook until a good portion of the crude oil has been had from the mills after the large sales of it lately.

We consider the all around consumption of the oil larger than that of last year, and that

the oil as well, steadily gets to Europe in pretty considerable quantities right along however quiet the export demands are talked. It is estimated that recent buying for export has been about 25,000 barrels for near future deliveries.

The delivery of the oil on April contracts in New York will be only moderate, but there would be large deliveries on the May contracts unless the speculators do much more shifting to the July and September deliveries.

New York Transactions.

The market closed last Saturday firm and unchanged from an advance of ¼c., that had been made the day before. Sales were 900 bbls. prime yellow, July, at 27½@27¾c.; 600 bbls., May, at 27c.; 500 bbls., April, at 26½c.; 100 bbls., March, at 26½c.; prices then: March, 26¼@26½c.; April at 26½@27c.; May at 26¾@27¼c.; July at 27¼@27½c.; September at 28@28½c.

On Monday the market was ¼@½c. lower with some pressure to sell; sales 150 bbls. March, at 26¼c.; 1,500 bbls. April, at 26c.; 800 bbls. July, at 27c.; 500 bbls. August, at 27½c.; 200 bbls. September, at 27¾c.; 100 bbls. do., at 28c.; prices on the first "call": March, at 26@26½c.; April, at 26@26½c.; May, at 26¼@27c.; July, at 27@27½c.; September, at 28@28½c., and on the last "call": March, at 25¾@26¼c.; April, at 25¾@26¼c.; May, at 26¼@26½c.; July, at 26¾@27c.; September, at 27½@27¾c.

On Tuesday there was a firmer opening, but in the afternoon, after the receipt of the government cotton crop report, prices became weak and about ¼c. lower. Sales of 1,000 bbls. August at 27c.; 500 bbls. prime yellow, May, at 26¼c.; 100 bbls. April, at 25¾c.; 4,600 bbls. July, at 27c.; 500 bbls. do. at 26¾c.; 200 bbls. September at 28c.; 400 bbls. do. at 27¾c.; 750 bbls. do. at 27½c.; 200 bbls. do. at 27¼c. Prices on the first "call": March, at 25½@26½c.; April, at 25¾@26¼c.; May, at 26¼@26½c.; July, at 26¾@27c.; September, at 27½@27¾c.; and on the

The Procter & Gamble Co.

Refiners of All Grades of

COTTONSEED OIL

Aurora, Prime Summer Yellow
Boreas, Prime Winter Yellow
Venus, Prime Summer White

Marigold Cooking Oil
Puritan Salad Oil
Jersey Butter Oil

Cable Address
Procter, Cincinnati, U. S. A.

Office, CINCINNATI, O.
Refinery, IVORYDALE, O.

High
Quality

KENTUCKY REFINING CO.

High
Quality

LOUISVILLE, KY., U. S. A.

Cable Address "Refinery" Louisville

OUR BRANDS ARE STANDARD THROUGHOUT THE WORLD

"ECLIPSE".....Choice Butter Oil
"STANDARD".....Extra Butter Oil
"DELMONICO".....Choice Summer Yellow
"APEX".....Prime Summer Yellow

"HULME".....Choice Winter White Oil
"NONPAREIL".....Choice Winter Yellow Oil
"WHITE LILY".....Prime Summer White Oil
"EXCELSIOR".....Summer White Soap Oil

"SNOWFLAKE"—CHOICE SUMMER WHITE OIL

High
Quality

Our "SNOWFLAKE" is Unequaled for Cooking Purposes

High
Quality

ASPEGREN & CO.

Produce Exchange

NEW YORK CITY

EXPORTERS

BROKERS

**WE EXECUTE
ORDERS
TO BUY OR SELL**

Cotton Seed Oil

**ON THE N. Y.
PRODUCE
EXCHANGE FOR**

FUTURE DELIVERY

Write to us for particulars. Will wire you the daily closing prices upon request.

last "call," March, at 25½@26c.; April, at 25½@26c.; May, at 26@26½c.; July, at 26¾@27c.; September, at 27¼@27½c.

On Wednesday the market opened rather steady on the early deliveries, and easier in instances on the late deliveries; first "call" prices: March, at 25½@26½c.; April, at 25¾@26¼c.; May, at 26@26½c.; July, at 26½@26¾c.; September, at 27¼@27½c.; sale 100 bbls. May delivery at 26c., and on the last "call," and later in the day the deliveries to May were ½c. lower, and July and September showed steadiness; late sales of 100 bbls. March, at 25½c.; 700 bbls. April, at 25½c.; 700 bbls. May, at 26c.; 100 bbls. September, 27½c.; last "call" prices: March, 25¼@25½c.; April, at 25¼@25¾c.; May, at 25¾@26c.; July, at 26½@26¾c.; September, at 27¼@27½c.

On Thursday the turn was stronger, with an advance in prices, and which amounted to ¾c. early in the day; the first "call" prices were: April, at 25½@26c.; May, at 26@26½c.; July at 26½@27¼c.; September, at 27¼@27¾c., but immediately afterwards 20c. bid for April, 26½c. bid for May, 27¼c. bid for July, and 27¾c. bid for September. Sales 1,000 bbls. April, at 25½c.; 400 bbls. do. at 25¾c.; 500 bbls. May, at 26½c.; 1,000 bbls. July, at 27¼c., and 500 bbls. good off yellow, April, at 25½c. In the afternoon continued firmness; sale 100 bbls. April, 26c.; 100 bbls. May, at 26¾c.; 200 bbls. September, 28c.; 600 bbls. winter yellow, May, 28c.; prices of prime yellow on the last "call": April, at 26@26½c.; May, at 26½@27c.; July, at 27¼@27½c.; September, at 28@28¼c., and after the "call" ¼c. lower on deliveries this side of September; sales 500 bbls. May, at 26½c.; 300 bbls. July, at 27¼c.; 200 bbls. September, at 28c.

(Friday's market on page 42.)

Export Demand.

In one way or another a good deal of the oil is finding foreign markets. From time to time the export demand is reported in a general way quiet, and it may be so on the open market. Nevertheless the steady full shipments show that somehow exporters are getting the oil, and that essentially all foreign markets are interested in it. Rotterdam is steadily getting supplies, although its takings for the season had been more important than any other foreign source of demand. Marseilles is steadily interested, but in more moderate quantities, and the Mediterranean ports in a general way, as well as England and Germany, are drawing upon supplies here steadily, although not actively. Within the

last two weeks about 25,000 barrels have been taken, as covering demands of all of the foreign markets.

Compound Makers' Demands.

There is steady, although very conservative buying of the compound makers, but whose consumption is of normal volume. The disposition of the home consumers this season not to buy supplies materially ahead of actual needs of them has tended in good degree to keep the market of an unexcited order. The bleaching grade in tanks is quoted at about 24@24½c.

Soapmakers' Demands.

We do not hear of any large sales to soapmakers, as the more important among them had well protected, some time since, their near future needs for consumption. But there is a wider consumption of the smaller soapmakers because of the very attractive consuming basis of prices.

At the Mills.

It is computed that within the last two weeks that fully 150,000 barrels crude, in tanks, have been sold by all of the mill points, of which 50,000 barrels this week at 19½c., in the Carolinas, 20c. in Georgia and Alabama, 19¼c. for 5,000 barrels in Texas and 21c. in Memphis. Just how much of this large business in crude has been to buyers on speculation is not clear. But it is much more satisfactory to find the mills being by that much relieved of their holdings of crude.

Oil Cake Demands.

There are steady export demands for the cake, and liberal quantities are steadily moving out to Europe from New Orleans and Galveston. The late advance in prices is well maintained. New Orleans quotes at \$25.25 per long ton.

The Lard Position.

Efforts for bull movements in the lard market are becoming tamer. It had been expected that in the period when farmers became busy in their farm work and that the marketing of livestock would then fall off that the products markets would be taken hold of temporarily for stronger prices. And the strong prices came about, but in a modified form as compared with trade expectations concerning them. The outsiders failed to come in, or to take to the market, and the general indifference in buying has been a sort of wet blanket over efforts for better

prices. The statistical position is, as is well understood, in favor of buyers.

The Beef Fat Markets.

The tallow market has been rather steadier this week under increased demands from the soapmakers, and which are close to the productions. The cattle supplies do not show as good condition as had been counted upon by a portion of the trade, as the prices of corn are too high for free, full feeding of it.

CABLE MARKETS

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, March 30.—Cottonseed oil shows a quiet market; nothing doing; nominal quotations; off oil at 32 marks; prime summer yellow at 34 marks; butter oil at 36 marks.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, March 30.—Cottonseed oil market the last week has been the dulllest in months; no demand; offerings scarce; quotations nominal. Good demand expected late in the spring.

Trieste.

(By Cable to The National Provisioner.)

Trieste, March 30.—Cottonseed oil market is dull. Prime summer yellow quoted at 43 francs; winter oil at 46 francs.

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, March 30.—Cottonseed oil market is dull and easy. Small sales of winter oil at 46½ to 48½ francs for prompt and forward delivery. Prime summer yellow is neglected at 43@45 francs.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, March 30.—Cottonseed oil market is steady. Sales of prime summer yellow at 17¼s.; off oil at 16¾s. c. i. f. English ports.

SOUTHERN MARKETS

New Orleans.

(Special Wire to The National Provisioner.)

New Orleans, La., March 30.—Texas crude offering at 19@19½c.; Valley, 20c.; some

Refined and Crude Cotton Oil

**BUY AND SELL COTTONSEED OIL,
FOR FUTURE DELIVERY, ON COMMISSION**

JOB, ELBERT & CO.,
Incorporated,
68 BROAD STREET,
NEW YORK.
Commission Merchants
and Exporters.

round lots sold this week. Cake and meal easier at \$25 per long ton, ship's side, New Orleans. Loose hulls firm at \$5.50; sacked hulls \$6.50.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., March 30.—After rather heavy sales in the early part of the week the market declined to 18½c, possibly 19c. for prime crude. No sales to-day. Meal quiet at \$23.50 f. o. b. Galveston.

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., March 30.—Crude held very strong; stocks light; 19½c. bid for April. Meal dull at \$19@20, f. o. b. mills, according to freight and test. Hulls weak at \$5 Atlanta.

Memphis.

(Special Wire to The National Provisioner.)

Memphis, Tenn., March 30.—Oil market easier; 20½c. bid for prime crude. Meal steady at \$21.25@21.50. Hulls, \$4.50@4.75, loose.

Kansas City.

(Special Wire to The National Provisioner.)

Kansas City, Mo., March 30.—Cotton oil market has been very firm during the week, with some anxious buyers of prime crude at 19@20c, f. o. b. at mills. Refined oil dull; both buyers and sellers indifferent.

COTTONSEED OIL EXPORTS

Exports of cottonseed oil for the week ending March 30, 1905, and for the period since September 1, 1904, were as follows:

From New York.		
Port.	For Week.	Since Sept. 1.
Bbls.	Bbls.	Bbls.
Aberdeen	—	50
Acajutla	—	25
Adelaide	—	53
Alexandria	376	3,012
Algiers	—	3,657
Algoa Bay	—	193
Ancona	—	575
Antigua	—	76
Antwerp	60	1,061
Auckland	—	47
Asua	—	6
Barbadoes	46	833
Belfast	—	25
Bergen	—	328
Bone	—	360
Bordeaux	—	3,070
Brazilia	—	25
Bremen	—	6
Bridgetown	—	435
Bristol	—	10
Buenos Ayres	9	2,173
Calbarien	—	10
Cape Town	—	406
Cardiff	—	10
Cairo	—	90
Cartagena	—	4
Cayenne	—	167
Christiania	—	651
Christiansand	—	45
Cienfuegos	—	47
Ciudad Bolivar	—	6
Colon	17	404
Conakry	—	45
Copenhagen	—	2,690
Corinto	10	146
Curacao	—	6
Danville	400	2,950
Delagoa Bay	—	21
Demerara	10	873
Drontheim	—	50
Dublin	—	76
Dundee	—	25
Dunkirk	—	400
East London	—	123
Fiume	—	2,000
Fort de France	300	1,710
Fremsnoile	—	58
Galatz	—	1,700
Genoa	1,342	24,781
Georgetown	—	32
Gibraltar	50	795
Glasgow	380	4,215
Gothenberg	400	2,131
Guadeloupe	—	1,804
Guaymas	—	45
Hamburg	150	2,806
Havana	52	1,237
Havre	270	19,295
Hong Kong	—	108

Hull	—	223
Jamaica	—	66
Kingston	100	2,064
Konigsberg	—	1,200
La Guaira	28	558
Leghorn	—	11,461
Leith	—	60
Liverpool	175	8,217
London	205	1,844
Lorenzo Marques	—	9
Macoris	—	1,409
Malmo	—	115
Malta	—	1,165
Manchester	—	370
Matanzas	—	29
Mauritius	—	8
Melbourne	—	375
Montego Bay	—	58
Montevideo	41	3,800
Naples	200	4,097
Newcastle	—	20
Oran	—	3,533
Panama	—	86
Para	—	19
Phillipsville	—	503
Pointe a Pitre	—	225
Port Antonio	—	94
Port au Prince	—	51
Port Limon	—	25
Port Natal	—	170
Porto Cabello	—	7
Port of Spain	—	105
Port Said	—	624
Progreso	—	61
Puerto Plata	96	517
Rio Janeiro	368	5,095
Rotterdam	—	7,321
St. Croix	—	19
St. John	—	119
St. Kitts	68	649
St. Thomas	—	37
San Domingo City	25	112
Santiago	—	62
Southampton	150	850
Santos	—	970
Shanghai	—	19
Sierra Leone	—	10
Singapore	—	114
Stavanger	35	470
Stettin	—	4,225
Stockholm	—	590
Sydney	—	483
Tangier	—	475
Trieste	—	23,926
Trinidad	9	819
Tunis	—	116
Valetta	—	1,508
Valparaiso	—	1,496
Varna	—	75
Velle	—	200
Venice	—	28,414
Vera Cruz	—	111
Wellington	—	70
Yokohama	—	19
Totals	10,079	254,311

From New Orleans.

Antwerp	3,000	8,410
Belfast	—	650
Bremen	1,000	2,793
Copenhagen	—	1,680
Genoa	—	2,121
Glasgow	—	3,088
Hamburg	810	15,568
Havana	—	1,277
Havre	—	1,745
Hull	—	900
Liverpool	100	11,440
London	—	5,830
Manchester	—	550
Marseilles	—	12,400
Porto Rico	—	65
Rotterdam	12,350	82,795
Trieste	—	14,487
Venice	—	2,810
Totals	17,260	169,109

From Galveston.

Antwerp	1,700	4,780
Hamburg	—	2,946
Liverpool	—	1,980
Marseilles	—	3,350
Rotterdam	3,500	67,549
Tampico	—	3,203
Trieste	—	7,521
Vera Cruz	—	6,534
Totals	5,200	97,923

From Newport News.

Hamburg	—	7,478
Liverpool	—	1,777
London	—	146
Rotterdam	1,700	7,091
Totals	1,700	17,092

From Baltimore.

Antwerp	—	1,050
Belfast	—	100
Bremen	300	540
Bremerhaven	—	296
Copenhagen	—	808
Hamburg	—	1,635
Havre	—	290

Rotterdam	—	4,338
Stettin	—	530
Totals	300	10,058

Recapitulation.

From New York	10,079	254,311
From New Orleans	17,260	169,109
From Galveston	5,200	97,923
From Newport News	1,700	17,092
From Baltimore	300	10,058
Grand total, all ports	35,459	548,493

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, March 30.—The refined oil market has been comparatively dull during the past week, and there has not been very much life to the trading on the Exchange. Most interest has been shown in April delivery. Considerable oil is held here waiting for the 1st of April to arrive, when it will be tendered. Some of the receivers of this April oil have evidently not provided for receiving it and facing the fact of the oil already being here, they have, during the last few days, tried to realize or arrange for switching it into May or July. This has naturally weakened the nearby deliveries, but at the reduced prices considerable support has been given to the market by exporters who are taking the oil.

The crude oil markets all over the country have been very active. Heavy sales have taken place in Texas at 19@19½c, in the Carolinas at 19½c, and in Georgia-Alabama and the Valley at 19½@20c. The fact that this oil passes from weak hands into stronger hands is naturally an argument to be taken into consideration. We estimate sales of crude oil during the past week at some 75,000 barrels. The export demand has been comparatively slack, as is usually the case at this time of the year. Domestic consumers have not shown much interest in buying. We look for the same kind of a steady market for some time to come. Fluctuations are not likely to be heavy. When the crude has all been sold or passed into the refiners' hands, it will be easier to foretell the course of the market. Until then, it is likely that most buyers and sellers will continue the present game of waiting.

Produce Exchange prices at 1 o'clock today were as follows: Prime summer yellow cottonseed oil, April, 26½c. asked and 26c. bid; May, 26¾c. asked and 26½c. bid; July, 27¼c. asked and 27c. bid; September, 28c. asked and 27¾c. bid.

JULIAN FIELD

Broker in Cottonseed Products
and Fertilizing Materials
ATLANTA, GA.

JULIUS DAVIDSON

Broker and Commission Merchant
PACKING HOUSE PRODUCTS
COTTONSEED OIL
302 and 303 Kemper Bldg. Kansas City, Mo.

W. B. JOHNSON & CO.,

Merchandise Brokers
—AND DEALERS IN—
Cotton Seed Products
32 N. Front Street Memphis, Tenn.

Lombard Iron Works & Supply Company AUGUSTA, GA.

Builders and Dealers in ENGINES, BOILERS, Tanks, Stacks, Standpipes, etc.; Bridge and Architectural Iron Work; Railroad, Cotton, Saw, Fertilizer, Oil and Ice MACHINERY and Supplies and Repairs; Shafting, Pulleys, Hangers, Leather and Rubber Belting and Hose; MILL SUPPLIES and TOOLS; Foundry, Machine, Boiler and Bridge Work. Capacity for 500 hands.

HIDES AND SKINS.

(Daily Hide and Leather Market.)

Chicago.

PACKER HIDES.—Cattle receipts are running small and the market is firm. Several of the packers are claiming a stronger market on account of the light cattle receipts and the small supply of all kinds of branded hides. Some fair sized sales have been made and these have been at unchanged prices, but packers are talking advances on April salting. Some packers are refusing to sell March native steers at under 13c., but on large packer has moved about 3,000 of these from Kansas City at 12½c. One buyer who is bidding this price for more has been unable to purchase any. Branded hides are particularly firm, with an advancing tendency. One leading packer has cleaned out most of his holdings of branded hides at steady prices and his sales are estimated at 5,000 butt brands at 12½c., 2,500 Colorados at 12½c. and 6,000 branded cows at 12c., all three varieties being up to April 1st salting. This packer claims to have declined 12½c. for his native steers, which he is holding at 13c. up to April 1st salting. Some packers have refused to sell April branded cows ahead at 12½c. A prominent packer has sold four cars of all weight native cows at 11½c., but other packers are holding heavy and light native cows at 12c. for both and have declined bids of 11½c. Bulls are unchanged.

COUNTRY HIDES.—The market is unchanged and firm, with bids of 9½c. now being refused for late receipt all No. 2 buffs. Different dealers each sold a car of all No. 2 buffs previously at 9½c., as reported yesterday, but are not willing to accept this price for more. A few cars of No. 1 and No. 2 buffs, running about one-third seconds are being offered at 10½c. and 9½c., but no sales of these have as yet been effected. Heavy cows are also offered at 10½c. and 9½c., but these are not as firm as buffs. Some December and January salting heavy cows and buffs are being held at 10½c. and 9½c. here. There is a good demand for extremes at 10½c. and 9½c., with only small offerings. Some small lots of choice heavy native steers are selling at 11½c. for No. 1's and 10½c. for No. 2's, but ordinary lots are obtainable at 11c. to 11½c. selected. Bulls keep closely cleaned up, with small sales at 9c. and 8c. on selection.

CALFSKINS.—The market is strong despite the fact that larger receipts are expected during the next two months. No sales of consequence are being made and prices continue nominal, with holders asking 15½c. for Chicago cities, 15c. to 15½c. for outside cities and 14½c. to 14¾c. for countries. Kips are unchanged at 10¾c. to 11¼c.

SHEEPSKINS.—Most packers are still either sold ahead or well cleaned up and prices continue strong at \$1.80 for 12 lb. and up sheep, \$1.70 for Western sheep, \$1.30 to \$1.40 for Western light sheep and lambs and \$1.50 to \$1.60 for choice native lambs. Packer shearlings are selling at various prices ranging from 47½c. to 57½c. Country skins are strong, with \$1.50 to \$1.65 for best fresh butcher lots and down to \$1.10 for mixed lots. Bridgeports continue to bring an average price of \$1.40.

LEATHER.—The packers are predicting a boom in the leather market to start in next month and that further advances in prices will be secured. It is reported here that extra heavy belting butts of 28 lbs. and up with plump heavy for round belting picked out have been sold in Philadelphia on the basis of 40c., with a good demand for more.

New York.

DRY HIDES.—No further sales made today. Receipts are light and stock moderate.

CITY SLAUGHTER HIDES.—The market on bulls is slightly firmer. One packer has sold a car of bulls flat for grubs at 10c. for light and 9½c. for heavy weights. The last sale of bulls previously reported was at 10c. for light and 9½c. for heavies. Native steers are quiet and little attention is paid to claims of 12c. being refused.

COUNTRY HIDES AND CALFSKINS.—Offerings are light of hides and sales are few, but the market is firm. One car of State cows containing 5 per cent. heavy bulls has been offered here at 9½c. flat, but straight cars of New York and Pennsylvania cows are held at 10c. to 10½c. flat. Calfskins continue rather easy, with increased offerings of country skins at \$1.15, \$1.45 and \$1.75. Most bids are 2½c. to 5c. under these prices.

FOREIGN CALFSKINS AND HORSE HIDES.—Last cable advices on calfskins quoted 11 to 12 lb. average French cities at 20c. to 20½c.; 18 to 20 lbs. average French cities at 17½c. and Paris cities, ½c. to ¾c. higher than the above prices, also Swiss city calf, 16 to 18 lbs. average, with heads on and short shanks, at 15½c., and green salted Gourlands, trimmed, 6 lbs. average, at 19½c. These prices are weighed up and delivered in New York, but the market may be changed by the Paris sales which are now in progress. Russian dry horse fronts of 9 to 10 lbs. average are held at \$2.05 and 8 lbs. average at \$1.85. Also Russian colt (whole skin) of 9 lbs. average, \$2.15 and 6 lbs. average, \$1.85 apiece.

London Fur Sales.

LONDON, March 20.—Further results on Hudson Bay Co.'s offerings were: Mink, 70 per cent. higher, Lynx 10 per cent. higher and Wolverine 10 per cent. higher than last March. Wolf was 20 per cent. lower than last March. C. M. Lampson & Co.'s offerings resulted, Beaver 10 per cent. higher than last January and Bear, 25 per cent. higher than last March.

Leather.

The market continues to show improvement and prices to harden. Philadelphia tanners are reporting small sales of choice light weight belting butts at 43c., but a large buyer here claims that he has not as yet paid above 41c. for light butts, though he admits that it is difficult to secure these. Light weight scoured oak backs are even scarcer than they were awhile ago and are strong. The scarcity is principally of 9 to 11 lb. backs which are firm at 38c. to 39c. Some sales of these have been made at both prices. Backs, 14 to 16 lbs., are in good supply and bringing 37c. to 38c. Twelve to 14 lb. backs can be bought in 1,000 side lots at 37c. Negotiations are in progress which if consummated will result in one of the largest sales of glove leather that has ever been made. Harness leather is firm and more active. A local jobber has sold a car of hemlock bellies at 13c. Texas oak sides are held at ½c. higher than last week's sales.

A BETTER SKIN PICKLE.

The pickling of sheep skins, from a manufacturer's point of view, is a serious matter. The desire of leather users is that the tanner may at some time or other be able to produce a less spongy leather than that now obtained by what is commonly known as the sulphuric acid pickling process. The sulphuric acid and common salt pickling process not only partially tans the leather—though the United States Treasury Department says it does not—but it swells the slots and leaves them more or less tintured with free sulphuric acid. If the tanner can have his pelt freed from min-

eral acid, the subsequent storing of the pickled slats will not produce deterioration in them, and the bookbinding, furniture and other trades using sheep skin or other pickled skin leathers will have a more desirable, serviceable and long-lived product; for all pickled skins show the same undesirable qualities in the finished article.

For a long time specialists have been laboring to discover some process of pickling which will not alter the character of the skins so treated. Many formulæ have been suggested and tried out with unsatisfactory results. The latest suggestion is the use of formic instead of sulphuric acid. Very good results have been obtained by immersing the skins in a solution of 0.25 per cent of formic acid after deliming and bating, agitated by a paddle wheel for twenty-four hours and then saturate them in a bath of common salt. This produces a white salted skin, but the germic action of the ingredients and the treatment gave satisfaction. The curative value of the pickle was sufficient for all intermediate purposes. Severe climatic, long distance travel and storage tests did not shake the efficacy of the pickle. The tannage from these skins yielded better leather and it brought a higher price in the consumptive market.

As the two processes are about equal in cost—the sulphuric acid test being a shade the cheaper—and both the leather and the price for it are better when the product is tanned by the other solution, it is a serious matter for the tanner as well as the pickler of skins. Slats from the formic acid both should command both a higher price and a readier sale in the open market if a verification of the tests is made and the facts as above stated established, in a commercial sense. It is of enough importance for picklers of skins to make private experiments and to act upon the results.

EGYPTIAN COTTONSEED OIL DUTIES.

The new Egyptian tariff schedules recently announced impose an import duty on crude cottonseed oil of 15 millimes, per kilo., net, and on refined of 18½ millimes. A millieme is equal to about one-half cent, American money.

See page 48 for business openings and offers of good positions.

HIDES DOWN!

with RETSOF CRUSHED ROCK SALT will make more money on account of receiving a thorough, honest cure. No time in RETSOF; just the pure Salt supplied by Nature. We merely crush and screen to meet the requirements. The fact that RETSOF spreads evenly—being dry—causes the hide to be cured uniformly; the Salt can be used several times, thus making it the most economical we know of.

That we are never too old to learn is exemplified by the following: A hide man who had used evaporated Salt for many years was induced recently to put down a pack of 25 hides with RETSOF and a pack of same number with evaporated; when taken up the pack salted with RETSOF had increased in weight 34 lbs. more than the other pack.

If you are skeptical give RETSOF a similar trial, that is all we ask.

Address

INTERNATIONAL SALT CO.
SCRANTON, PENNA., or CHICAGO, ILLS.

CARROLL S. PAGE, HYDE PARK, VT.

Green Calfskins, Country Hides, Sheep
Pelts, Tallow, Bones.

Wool Puller and Tallow Renderer	Manufacturer of Page's Perfected Poultry Food
---------------------------------------	---



CHICAGO SECTION



The beef inquiry is not nearly as interesting as a good dog fight.

John D. might ask Andy how to force people to take his money.

Our mayoralty candidates have got even the prize fighters beat—talking.

Chicago Board of Trade memberships are changing hands at \$3,075 net to the buyer.

Portland, Ore., offers a splendid opportunity to anyone desiring to enter the packing field.

The acre property bought by John R. Walsh in the vicinity of the Stock Yards cost about \$40,000.

On April 17th canners will meet in Buffalo to consider the question of forming a national association.

Col. W. C. Skinner is back from his old "stamping" ground, Fort Worth, Tex., looking finer'n silk.

The way the world is wagging it looks as if there will be a lot of old thrones for sale cheap ere long.

W. Jennings Bryan and Mexico ain't on speaking terms any more. Neither are some people here in Chicago.

Edward C. Theobald, formerly bookkeeper for Armour & Company at Greenville, Miss., and accused of embezzling \$2,200, was arrested this week in Chicago.

Thomas H. Wickes, vice-president of the Pullman Palace Car Company, died this week at his residence. The same thing killed him that had been his life's bane—heart trouble.

Ground is being broken for the new packing plant to be built by the National Provision Company. This will not be one of the largest packinghouses, but it will be one of the most modern.

Armour & Company will shortly commence the erection of a fine office building in the yards at an estimated cost about a quarter of a million. No expense will be spared in the appointments thereof.

Quite a number of employees and ex-employees of meat firms are being summoned to

appear before the beef inquiry Grand Jury within the next ten days. They are from various concerns and parts of the country and connected with the different departments in diversified positions.

Among Chicago's most prominent and popular cattle buyers may be mentioned, Thos. Cross, Emil Rothschild, T. Ingwersen, W. Leavitt, William Wyness, S. Grabenheimer, S. Hess and G. Campbell.

Swift & Company's sale of fresh beef in Chicago for the week ending Saturday, March 25th, averaged about 6 1-3c. per pound. Sales of live cattle averaged \$5.05 for the same week. Extreme range was \$3.85@ \$6.25.

The Michigan State Senate has instructed its committee on saline interests to investigate charges that salt being shipped in bulk from Manistee and other west Michigan ports to Chicago is barreled and labeled "Saginaw salt," which is of a higher grade.

Armour & Company secured three months contracts for pork products from the following Iowa institutions: Anamosa, Cherokee, Clarinda, Davenport, Eldorado, Fort Madison and Vinton. Swift & Company took Marshalltown and Mount Pleasant, and S. & S., Mitchellville.

Swift & Company have secured three months beef contracts for the following Iowa institutions: Anamosa, Cherokee, Clarinda, Fort Madison, Glenwood, Independence, Mitchellville, Vinton and Mount Pleasant. Armour & Company secured Davenport and Marshalltown.

The Agar Packing Company, of Des Moines, has secured sausage contracts for the following Iowa institutions for three months: Council Bluffs, Davenport, Marshalltown, Mount Pleasant, Anamosa, Cherokee, Clarinda, Eldorado, Fort Madison, Glenwood, Independence, Mitchellville and Vinton.

Fred W. Wilder, the packinghouse expert in designing, constructing, equipping and operating in all its phases, has just returned from Montana, where he has been prospecting around some, adding to his already big store of packinghouse knowledge, looking into the cattle situation and other interesting possibilities.

President Felton, of the Chicago & Alton Railroad, has issued an order that all trainmen will be given a summer and winter uniform free who have been in the employ of the company ten or more years, and those of five years and under ten in service will have one suit free, having choice of either summer or winter outfit.

Said a United States official to Byles: "I've been a'watching of you for a whyles; Your talk it me ryles, and I don't like your styles;

So mosey before your name's on the fyles For' contempt of court, my dear Mr. Byles." So Byles hit the tyles, down the Mo-nadnock ayles,

And the officer smyled his broadest of smyles.

Dr. E. O. Dyson, defending his department and men, said: "If Dr. Jacques, of the city health department, or anyone else can find any dressed beef in any retail shop without the government label, which is a guarantee of non-tuberculous beef, let him report the matter and a thorough investigation will follow. All plants except one small hog and one small sheep plant are under government inspection."

John R. Walsh, the banker, has purchased three hundred acres of land—one mile on South 46th and the Western Indiana Belt Line to the west, half a mile on 31st street to the north, half mile on 42d street and three-quarters of a mile on the drainage canal. As Mr. Walsh is building a railroad from his Indiana coal fields to Chicago this purchase may possibly have some connection therewith, but it is quite possible it has some connection with the new packing interests incorporated of late. The site is desirable for both stockyards and packinghouses.

The loan obtained by the Chicago Junction Railway Company through an authorized bond issue of \$2,327,000 of forty-year first mortgage gold bonds, dated March 1, 1905, and secured by a trust deed to the First Trust and Savings Bank, has been filed for record. The bonds draw 4 per cent. interest. The loan is for payment for real estate and for providing bonds for constructing and completing an elevated railroad. The company has entered into a lease with the South Side Elevated Railroad, leasing the line of elevated railroad when constructed and real estate of the South Side Elevated Railroad Company for fifty years. The security is the elevated structure to be built, connecting with the South Side Elevated Railroad Company near State and Fortieth streets, to Halsted street and through certain streets of Packingtown. The plan includes the double-track elevated railroad to be built from Prairie and Calumet avenues, near Fortieth street, to Lake avenue.

The Davidson Commission Co.

308 Rialto Building, Chicago
Brokers and Commission Merchants
PACKINGHOUSE PRODUCTS
COTTONSEED PRODUCTS
FERTILIZER MATERIALS

HENRY DUMMERT

218 La Salle Street
CHICAGO

Broker and Commission Merchant

in TALLOW, GREASE and COTTONSEED OIL.
HIGHEST REFERENCES.

GOVERNMENT LIVESTOCK FIGURES.

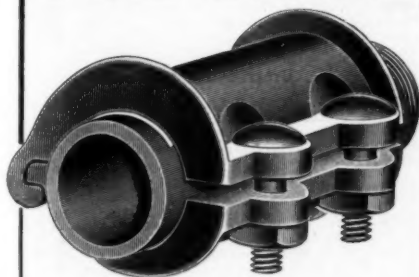
Internal traffic movements of staple products of the United States, as reported to the Department of Commerce and Labor through its Bureau of Statistics, present, in the aggregate, a decrease for January and February, if compared with similar movements for 1904, although in a number of specific instances increases have been noted. Weather conditions during February, especially in the Middle West and the Northwest, were extremely unfavorable to a free train movement, the intense cold and heavy snows causing numerous delays and blockades.

Live-stock receipts during the month of February at the markets of Chicago, Kansas City, Omaha, St. Louis, and St. Joseph totaled 2,707,972 head, in contrast with 3,046,282 head for a similar month in 1904 and 2,498,698 head in 1903. For the two months ending February 28 total live stock arrivals at these five markets were 5,943,583 head in 1905, 6,074,632 head in 1904, and 5,257,491 head in 1903. Of the present year's total, hogs constituted 3,291,517 head, sheep 1,390,261 head, and cattle 1,146,052 head.

LIVESTOCK EXCHANGE INSURANCE.

The Kansas City Live Stock Exchange is considering a plan to raise the price of memberships from \$1,500 to \$2,500 and add an insurance clause, which provides that upon the death of a member in good standing the exchange shall pay to the heirs or the estate the sum of \$2,500 and cancel the membership. At the present time memberships sell at \$800 to \$1,000 without the insurance feature.

Several months ago an attempt was made to organize an insurance club among the members of the exchange. It was a mutual organization and provided for 200 members who agreed to deposit \$200 with the treasurer, \$1,500 of which was to be paid to the first member to die. The membership in the exchange was not involved. The promoters could not get over 120 signers to the agreement, and abandoned the plan. The present agitation grows out of the former attempt.

EMERGENCY PIPE CLAMP

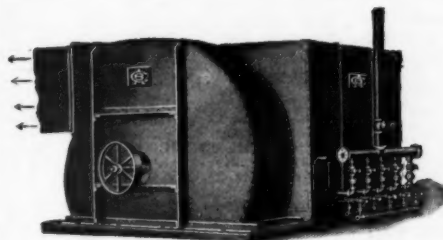
Quickly put on Condensers, Steam, Brine or Ammonia Pipe. Strong as any part of pipe. May last for years.

SAVES EXPENSIVE REPAIR WORK

Stops Disastrous Leaks Immediately. Screws up tight on pipe without breaking. All sizes up to 6-inch; packing included.

Prices and particulars upon request.

Davies Warehouse & Supply Co.
20-32 N. Clark St., Chicago, Ill.

"A B C" FAN SYSTEM OF HEATING AND VENTILATING

A Fan or Blower attached to a bank of steam coils draws or forces warm air into ducts or conduits, furnishing a constantly changing current of heated air to all parts of the building, resulting in a uniform temperature and perfect ventilation.

It will be worth your while to investigate "The Method Successful."

FANS AND BLOWERS FOR ALL PURPOSES

American Blower Co., Detroit

TEXAS CATTLEMEN MEET.

At the annual meeting of the Texas Cattle Raisers' Association at Fort Worth last week the constitution and by-laws of the association were amended so that President W. W. Turney could be re-elected. President Turney is exceedingly popular because of his strenuous advocacy of the cattlemen's interests on every occasion. I. T. Pryor, of San Antonio, was chosen vice-president; Richard Walsh, Paladuro, second vice-president; John T. Lyttle, secretary; S. Burnett, treasurer. A resolution was adopted lining up the association with the American Stock Growers' Association, the body formed by seceders from the National Live Stock Association.

BALTIMORE FERTILIZER MARKET.

(Special Letter to The National Provisioner from Thos. H. White & Co.)

Baltimore, Md., March 30.—The market for ammoniates remains quiet, although we note a rather better inquiry for prompt shipment from both East and South. The quantity of material offered is plentiful, and at the close the market shows no material change from our last report. We quote (nominal):

Ground tankage, 7 and 25, \$17 per ton f. o. b. Chicago; unground tankage, 9 and 20, \$2 and 10 per unit f. o. b. Chicago; ground tankage, 11 and 15, \$2.10 and 10, \$2.15 and 10 per unit f. o. b. Chicago; ground concentrated tankage, \$2.25 per unit f. o. b. Chicago; ground blood, \$2.50 per unit f. o. b. Chicago; hoof meal, \$2.40@2.45 per unit f. o. b. Chicago; crushed tankage, 9 and 20 (tankage), \$2.45 and 10, \$2.50 and 10 c. a. f. basis Baltimore.

Nitrate of Soda.—Immediate delivery, \$2.45 @2.50 per 100 lbs.; ex vessel, due April 10, \$2.35 per 100 lbs.; May, \$2.32½ per 100 lbs.; June, \$2.30 per 100 lbs.; July-December, \$2.22½ per 100 lbs.

All above 95 per cent. grade, 96 per cent. grade, 2½ cents per 100-lbs. higher.

Good men for all factory positions to be found through our Wanted department. See page 48.

RECEIPTS AT CENTERS

SATURDAY, MARCH 25.

	Cattle.	Hogs.	Sheep.
Chicago	300	9,000	2,500
Kansas City	100	3,000	500
Omaha	100	6,000	1,000

MONDAY, MARCH 27.

Chicago	22,000	40,000	28,000
Kansas City	9,000	6,000	5,000
Omaha	3,100	42,000	11,000

TUESDAY, MARCH 28.

Chicago	5,500	25,000	18,000
Kansas City	10,000	11,000	5,000
Omaha	5,000	10,000	9,000

WEDNESDAY, MARCH 29.

Chicago	10,000	30,000	20,000
Kansas City	4,000	8,000	3,000
Omaha	3,800	9,000	8,000

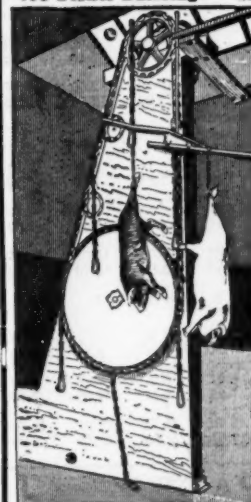
THURSDAY, MARCH 30.

Chicago	6,500	28,000	15,000
Kansas City	4,000	7,000	2,000
Omaha	1,600	5,500	7,500

FRIDAY, MARCH 31.

Chicago	2,500	1,700	7,000
Kansas City	1,000	5,000	2,000
Omaha	1,800	6,500	2,500

O. P. HURFORD'S HOG HOIST
FOR SMALL PACKERS
403 Fisher Building CHICAGO, ILL.



Mechanical Mfg. Co.

Agents for the Hurford Hog Hoists

Union Stock Yards
Chicago, Ill.

Albright-Nell Co.

401½ Westworth Ave.
Chicago, Ill.

Wair & Craig Mfg. Co.

247½ Wallace Street
Chicago, Ill.

BRECHT BUTCHERS' SUPPLY CO.
Sole Foreign Agents ST. LOUIS, MO.
CINNINNATI BUTCHERS' SUPPLY CO.
CINNINNATI, O.

CHICAGO PROVISION LETTER.

(Special to The National Provisioner from C. D. Forsyth & Co.)

Chicago, March 9.—We quote to-day's market as follows: Green hams, 10@12 ave., 9@9½; 12@14 ave., 8½; 14@16 ave., 8½; 18@20 ave., 9½; green picnics, 5@6 ave., 6½; 6@8 ave., 5½; 8@10 ave., 5½; 10@12 ave., 5½; green N. Y. shoulders, 10@12 ave., 6; 12@14 ave., 6; green skinned hams, 18@20 ave., 10½; green clear bellies, 8@10 ave., 9½; 10@12 ave., 9; No. 1 S. P. hams, 8@10 ave., 8½; 10@12 ave., 8½; 12@14 ave., 8½; 14@16 ave., 8½; 18@20 ave., 8½; No. 2 S. P. hams, 10@12 ave., 8½; 12@14 ave., 8½; 14@16 ave., 8½; No. 1 S. P. skinned hams, 16@18 ave., 9½; 18@20 ave., 9½; 20@22 ave., 9½; 22@24 ave., 9; 24@26 ave., 8½; No. 1 S. P. picnics, 5@6 ave., 5½; 6@7 ave., 5½; 6@8 ave., 5½; 7@9 ave., 5½; 8@10 ave., 5½; 10@12 ave., 5½; No. 1 S. P. N. Y. shoulders, 8@10 ave., 6; 10@12 ave., 6; S. P. clear bellies, 8@10 ave., 8½; 10@12 ave., 8½.

Prices on S. P. meats are all loose, f. o. b., Chicago.

CHICAGO LIVE STOCK

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, Mar. 20.....	23,295	542	32,990	16,519
Tuesday, Mar. 21.....	4,012	3,119	15,730	14,143
Wednesday, Mar. 22.....	19,942	1,052	30,936	16,912
Thursday, Mar. 23.....	6,802	1,439	27,248	16,212
Friday, Mar. 24.....	2,105	147	17,185	8,850
Saturday, Mar. 25.....	206	11	9,115	1,657
Total last week.....	56,422	6,261	133,295	74,293
Total previous week.....	61,448	6,489	138,045	73,277
Cor. week 1904.....	56,967	5,691	165,568	82,225
Cor. week 1903.....	63,382	4,069	119,577	61,448

SHIPMENTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, Mar. 20.....	7,590	19	11,816	3,248
Tuesday, Mar. 21.....	3,620	16	3,960	2,217
Wednesday, Mar. 22.....	6,296	5	7,749	2,952
Thursday, Mar. 23.....	7,290	32	10,410	4,901
Friday, Mar. 24.....	4,622	75	8,285	4,633
Saturday, Mar. 25.....	567	8	4,117	893
Total last week.....	29,094	158	46,257	18,844
Total previous week.....	27,259	292	50,627	26,873
Cor. week 1904.....	23,877	121	48,216	22,151
Cor. week 1903.....	22,747	140	30,010	6,566

Combined receipts of hogs at eleven markets for week ending March 25, 1905..... 401,000
Week ago..... 381,000
Year ago..... 304,000
Two years ago..... 256,000
Total receipts for year to date, 6,141,000, against 5,804,000 year ago, 5,166,000 two years ago.

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City), as follows:

	Cattle.	Hogs.	Sheep.
Week ending Mar. 25, 1905.....	140,700	314,400	151,500
Week ago.....	137,560	302,000	151,700
Year ago.....	135,790	232,807	108,000
Two years ago.....	128,960	272,700	145,700

CHICAGO HOG SLAUGHTER.

Chicago packers slaughtered hogs during week ending March 4 as follows:

Armour & Co.....	24,100
Anglo-American.....	7,200
Continental.....	3,300
Swift & Co.....	16,500
Hammond & Co.....	4,000
Morris & Co.....	5,800
Boyd-Latham & Co.....	4,000
S. & S.....	9,100
H. Moore & Co.....	2,300
Robert & Oak.....	2,500
Other packers.....	16,300

Total.....	95,200
Left over.....	3,000
Week ago.....	97,710
Year ago.....	78,800
Two years ago.....	97,500

AVERAGE PRICE OF HOGS.

Week ending March 4, 1905.....	\$5.37
Previous week.....	5.14
Year ago.....	5.32
Two years ago.....	7.47
Three years ago.....	6.41

Estimated receipts of livestock week ending April 1:
Cattle..... 60,000
Hogs..... 150,000
Sheep..... 75,000

AVERAGE PRICE OF GOOD BEEF CATTLE.

Week ending March 25.....	\$5.10
Previous week.....	5.00
Year ago.....	4.85
Two years ago.....	4.85

CATTLE.

Choice to fancy steers.....	\$5.05@6.25
Fair to choice shipping steers.....	5.00@5.50
Medium beef steers.....	4.40@4.50
Inferior and plain steers.....	3.25@4.35
Good to fancy cows and heifers.....	4.20@5.00
Fair to good cows and heifers.....	3.10@3.90
Fair to choice feeders.....	3.50@4.80
Fair to good stockers.....	2.25@4.25
Good cutting and fair beef cows.....	2.25@3.25
Common to good canning cows.....	1.15@2.25
Bulls, poor to choice.....	2.25@3.80
Calves, common to fair.....	3.50@5.50
Calves, good to fancy.....	5.75@7.00

HOGS.

Good to choice heavy shipping.....	\$5.35@5.50
Fair to choice butcher weights.....	5.40@5.55
Medium to fair heavy packing.....	5.40@5.45
Plain to good heavy mixed.....	5.45@5.50
Assorted light shipping.....	5.25@5.45
Good to choice, 200 to 275-lb. weights.....	5.45@5.50
Fair to choice pigs, 65 to 125-lb. weights.....	4.35@5.15

SHEEP.

Choice to prime wethers.....	\$5.70@6.25
Medium to good wethers.....	5.20@5.65
Fair to fancy ewes.....	5.00@6.00
Culls, bucks and tail-end stock.....	3.00@4.00
Yearlings, fair to choice.....	6.50@6.90
Choice to prime native lambs.....	7.00@7.65
Medium to good native lambs.....	5.75@6.50
Fed Western lambs.....	6.00@7.65
Feeding lambs.....	6.00@7.50

CHICAGO RETAIL FRESH MEATS.

NOTE.—It is difficult to quote flat retail figures applicable to the whole of the city, every market having a practically different scale according to location, class and volume of trade, etc.

Beef.

Native Rib Roasts.....	18	@30
Native Sirloin Steaks.....	18	@30
Native Porterhouse Steaks.....	22	@35
Native Pot Roasts.....	8	@10
Rib Roasts from light cattle.....	10	@12½
Beef Stew.....	5	@8
Boneless Corned Briskets, Native.....	10	@10
Corned Rumps, Native.....	8	@10
Corned Ribs.....	6	@10
Corned Flanks.....	6	@12½
Round Steaks.....	10	@13
Round Quarters.....	10	@13
Shoulder Steaks.....	10	@13
Shoulder Roasts.....	10	@13
Shoulder Neck End, Trimmed.....	7	@12½
Rollad Roast.....	10	@12½

Lamb.

Hind Quarters.....	16
Fore Quarters.....	12½
Legs.....	16
Stew.....	6
Shoulders.....	10
Chops, Rib and Loin.....	22

Mutton.

Legs.....	14
Stew.....	4
Shoulders.....	8
Hind Quarters.....	12½
Fore Quarters.....	16
Rib and Loin Chops.....	18

Pork.

Pork Loin.....	10
Pork Chops.....	11
Pork Tenderloins.....	24
Pork Butts.....	6
Spare Ribs.....	5
Blades.....	6
Hocks.....	7
Pigs' Heads.....	5
Leaf Lard.....	6

Veal.

Hind Quarters.....	14
Fore Quarters.....	11
Legs.....	16
Breasts.....	8@10
Shoulders.....	10
Cutlets.....	20

Butchers' Offal.

Tallow.....	8 @ 8½
Mixed Bone and Tallow.....	1½ @ 2
Calfskins, 5 to 15 lbs.....	@15½
Calfskins, under 5 lbs. (deacons).....	@85

SOUTH WATER STREET MARKETS.

Live Poultry.

Turkeys.....	@13
Chickens.....	@13
Roosters.....	@7
Springs.....	@13
Ducks.....	12 @13
Geese.....	10 @11

Dressed Poultry.

Turkeys.....	18 @19
Chickens.....	12½ @13
Springs.....	12½ @13
Ducks.....	13 @14
Geese.....	10 @11

Veal.

Choice.....	8½ @ 9½
Heavy, 85 to 120 lbs.....	7 @ 9
Medium, 65 to 80 lbs.....	5 @ 6½
Small, 50 to 60 lbs.....	4 @ 5
Coarse, small to heavy.....	4 @ 4½

Butter.

Creamery, Prints.....	@30
Creamery, Extras.....	@29
Creamery, Firsts.....	@26
Creamery, Seconds.....	@20
Dairies, Choice.....	@25
Dairies, Firsts.....	@22
Dairies, Ladies.....	@15
Dairies, Packing stock.....	@18
Renovated.....	@24

Eggs.

Extras.....	@18
Prime firsts.....	@17
Firsts.....	@16
Fresh, at mark, cases inc.....	@16

SEE PAGE
48 FOR
BARGAINS

MARKET PRICES

CHICAGO.

WHOLESALE FRESH MEATS.

Carcass Beef.	
Western Cows	5 1/2 @ 6
Native Cows	6 @ 6 1/2
Western Steers	6 1/2 @ 7 1/2
Good Native Steers	7 1/2 @ 8
Native Steers, Medium	7 @ 7 1/2
Heifers, Good	7 @ 7 1/2
Heifers, Medium	6 1/2 @ 6 3/4
Hind Quarters	1 1/2 c. over Straight Beef
Fore Quarters	1 1/2 c. under Straight Beef

Beef Cuts.

Steer Chucks	6 @ 6 1/2
Cow Chucks	4 @ 5
Boneless Chucks	4 @ 5
Medium Plates	4 @ 4 1/2
Steer Plates	4 @ 4 1/2
Cow Rounds	5 1/2 @ 6
Steer Rounds	6 1/2 @ 7 1/2
Cow Loins, Common	8 @ 8
Cow Loins, Medium	9 @ 9
Cow Loins, Good	11 @ 11
Steer Loins, Light	13 @ 13
Steer Loins, Heavy	17 1/2 @ 17 1/2
Beef Tenderloins, No. 1	18 1/2 @ 18 1/2
Beef Tenderloins, No. 2	15 @ 15
Strip Loin	12 @ 12
Shoulder Butts	9 @ 9
Shoulder Clods	9 @ 9
Rolls	9 1/2 @ 9 1/2
Rump Butts	5 1/2 @ 5 1/2
Trimnings	3 1/2 @ 3 1/2
Shank	3 1/2 @ 3 1/2
Cow Ribs, Heavy	10 @ 10
Cow Ribs, Common Light	7 @ 7
Steer Ribs, Light	10 @ 10
Steer Ribs, Heavy	12 @ 12
Loin Ends, steer-native	10 @ 10
Loin Ends, cow	7 @ 7
Hanging Tenderloins	6 @ 6
Flank Steak	6 1/2 @ 6 1/2

Beef Offal.

Livers	3 @ 3
Hearts	2 1/2 @ 2 1/2
Tongues	12 1/2 @ 12 1/2
Sweetbreads	18 @ 18
Ox Tail, per lb.	4 @ 4
Fresh Tripe—plain	2 1/2 @ 2 1/2
Fresh Tripe, H. C.	4 @ 4
Kidneys, each	4 @ 4
Brains	3 1/2 @ 3 1/2

Veal.

Heavy Carcass Veal	6 @ 6
Light Carcass	7 @ 7
Medium Carcass	7 1/2 @ 7 1/2
Good Carcass	9 @ 9
Medium Saddle	10 @ 10
Good Saddle	11 1/2 @ 11 1/2
Medium Rack	5 1/2 @ 5 1/2
Good Rack	7 1/2 @ 7 1/2

Veal Offal.

Brains, each	3 1/2 @ 3 1/2
Sweetbreads	40 @ 40
Pincks	20 @ 20
Heads, each	10 @ 10

Lamba.

Medium Caul	9 1/2 @ 9 1/2
Good Caul	10 1/2 @ 10 1/2
Round Dressed Lamb	11 1/2 @ 11 1/2
Saddle Caul	11 @ 11
R. D. Lamb Saddle	8 @ 8 1/2
Caul Lamb Racks	9 @ 9
R. D. Lamb Racks	9 @ 9
Lamb Fries, per pair	10 @ 10
Lamb Tongues, each	3 @ 3
Lamb Kidneys, each	1 1/2 @ 1 1/2

Mutton.

Medium Sheep	8 @ 8 1/2
Good Sheep	9 @ 9 1/2
Medium Saddle	9 1/2 @ 9 1/2
Good Saddle	10 1/2 @ 10 1/2
Medium Rack	7 @ 7
Good Rack	8 @ 8
Mutton Legs	10 1/2 @ 10 1/2
Mutton Stew	4 1/2 @ 5
Mutton Loins	10 @ 10
Sheep Tongues, each	3 @ 3
Sheep Heads, each	5 @ 5

Fresh Pork, Etc.

Dressed Hogs	7 @ 7
Pork Loins	9 1/2 @ 9 1/2
Leaf Lard	6 1/2 @ 6 1/2
Tenderloins	20 @ 20
Spare Ribs	6 1/2 @ 6 1/2
Butts	8 @ 8
Hocks	5 @ 5
Trimnings	5 @ 5
Tails	4 1/2 @ 4 1/2
Snouts	3 1/2 @ 3 1/2
Pigs' Feet	3 @ 3
Pigs' Heads	3 1/2 @ 3 1/2
Blade Bones	5 @ 5
Cheek Meat	3 1/2 @ 3 1/2
Hog Plucks	3 1/2 @ 3 1/2
Neck Bones	2 @ 2
Skinned Shoulders	6 1/2 @ 6 1/2
Pork Hearts	2 1/2 @ 2 1/2
Pork Kidneys	2 1/2 @ 2 1/2
Pork Tongues	10 @ 10
Slip Bones	3 1/2 @ 3 1/2
Tail Bones	3 1/2 @ 3 1/2
Brains	3 1/2 @ 3 1/2
Rackfat	3 @ 3
Hams	9 1/2 @ 10 1/2
Calan	6 1/2 @ 6 1/2
Shoulders	6 1/2 @ 6 1/2
Belites	8 1/2 @ 8 1/2

SAUSAGE.

Cloth Bologna	5 1/2 @ 5 1/2
Bologna, large, long, round and clove	5 @ 5
Choice Bologna	6 1/2 @ 6 1/2
Viennas	7 @ 7
Frankfurters	6 1/2 @ 6 1/2
Blood, Liver and Headcheese	5 @ 5
Tongue	8 @ 8
White Tongue	8 @ 8
Minced Ham	8 1/2 @ 8 1/2
Prepared Ham	9 @ 9
New England Ham	9 @ 9
Compressed Ham	9 @ 9
Large Compressed Ham	9 @ 9
Berliner Ham	7 1/2 @ 7 1/2
Boneless Ham	9 1/2 @ 9 1/2
Oxford Ham	9 1/2 @ 9 1/2
Polish Sausage	6 @ 6
Leona, Garlic, Knoblauch	4 @ 4
Smoked Pork	4 @ 4
Veal Ham	6 @ 6
Farm Sausage	11 @ 11
Pork Sausage, bulk or link	6 @ 6
Pork Sausage, short link	6 @ 6
Special Prepared Ham	7 1/2 @ 7 1/2
Boneless Pigs' Feet	5 1/2 @ 5 1/2
Ham Bologna	7 @ 7
Special Compressed Ham	8 @ 8
Boston Roll	8 @ 8
Cubana Sausage	8 @ 8

Summer Sausage.

Supreme Summer, H. C., New Medium Dry	16 @ 16
German Salmi, New Dry	14 @ 14
Holsteiner, New	11 @ 11
Mettwurst, New	12 @ 12
Farmer, New	17 @ 17
Darles, H. C., New	17 @ 17
Italian Salmi, New	14 @ 14
Monarque Cervelat	14 @ 14

Sausage in Oil.

Smoked Pork, 1-50	5.75 @ 5.75
Smoked Pork, 2-20	3.25 @ 3.25
Bologna, 1-50	2.75 @ 2.75
Bologna, 2-20	2.25 @ 2.25
Viennas, 1-50	4.25 @ 4.25
Viennas, 2-20	3.75 @ 3.75

Sausage in Brine.

Fresh Pork Link	6 @ 6
Liver Sausage	6 1/2 @ 6 1/2
Blood Sausage	6 1/2 @ 6 1/2
Head Cheese	6 1/2 @ 6 1/2
Bologna	6 1/2 @ 6 1/2
Vienna	8 @ 8

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels	7.00 @ 7.00
Pickled Plain Tripe, in 200-lb. barrels	4.50 @ 4.50
Pickled H. C. Tripe, in 200-lb. barrels	7.75 @ 7.75
Pickled Ox Lips, in 200-lb. barrels	11.00 @ 11.00
Pickled Pigs' Snouts, in 200-lb. barrels	12.00 @ 12.00
Lamb Tongue, Short Cut, barrels	35.00 @ 35.00

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz. to case	Per doz. \$1.20
2 lbs., 1 of 2 doz. to case	2.30 @ 2.30
4 lb., 1 doz. to case	4.90 @ 4.90
6 lb., 1 doz. to case	8.00 @ 8.00
14 lb., 1/2 doz. to case	18.00 @ 18.00

EXTRACT OF BEEF.

1 oz. jars, 1 dozen in box	Per doz. \$2.25
2 oz. jars, 1 dozen in box	3.55 @ 3.55
4 oz. jars, 1 dozen in box	6.50 @ 6.50
8 oz. jars, 1/2 dozen in box	11.60 @ 11.60
6 oz. jars, 1/2 dozen in box	22.00 @ 22.00
2, 5 and 10 lb. tins	\$1.75 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef	Per bbl. \$10.00
Plate Beef	9.00 @ 9.00
Extra Mess Beef	8.50 @ 8.50
Prime Mess Beef	9.00 @ 9.00
Beef Ham	18.50 @ 18.50
Rump Butts	8.00 @ 8.00
Mess Pork (repacked)	12.00 @ 12.00
Clear Fat Backs	12.75 @ 12.75
Family Back Pork	14.00 @ 14.00
Bean Pork	10.25 @ 10.25

LARD.

Pure leaf, kettle rendered, per lb., tierces	8 1/2 @ 8 1/2
Lard, substitute, tierces	5 1/2 @ 5 1/2
Lard compounds	5 1/2 @ 5 1/2
Barrels	1/2 c. over tcs.
Half barrels	1/4 c. over tcs.
Tubs, from 10 to 80 lbs.	1/4 c. to 1 c. over tcs.
Cooking oil, per gal.	32c. @ 32c.

BUTTERINE.

F. O. B. CHICAGO.

No. 1, natural color	210 @ 210
No. 2, natural color	211 1/2 @ 211 1/2
No. 3, natural color	212 @ 212
No. 4, natural color	213 @ 213
No. 5, natural color	214 @ 214
No. 6, natural color	215 @ 215

DRY SALT MEATS.

Clear Bellies, 14 @ 16 average	7 1/2 @ 7 1/2
Rib Bellies, 14 @ 16 average	7 1/2 @ 7 1/2
Fat Backs	5 1/2 @ 5 1/2
Regular Plates	5 @ 5
Short Cures	7 @ 7 1/2

WHOLESALE SMOKED MEATS.

Hams, 12 lbs. average	9 1/2 @ 9 1/2
Hams, 14 lbs. average	9 1/2 @ 9 1/2
Hams, 16 lbs. average	9 1/2 @ 9 1/2
Skinned Hams	10 1/2 @ 10 1/2

Calas, 6 @ 7 lbs. average	6 @ 7
Calas, 8 @ 12 lbs. average	6 1/2 @ 6 1/2
Breakfast Bacon, fancy	14 1/2 @ 14 1/2
Wide, 8 @ 10 average, and Strip, 4 @ 5 ave.	9 @ 9
Wide, 10 @ 12 average, and Strip, 5 @ 6 ave.	9 1/2 @ 9 1/2
Wide, 12 @ 14 average, and Strip, 6 @ 7 ave.	9 1/2 @ 9 1/2
Dried Beef Sets	12 1/2 @ 12 1/2
Dried Beef Insides	14 1/2 @ 14 1/2
Dried Beef Knuckles	13 1/2 @ 13 1/2
Dried Beef Outsoles	10 1/2 @ 10 1/2
Regular Boiled Hams	14 @ 14
Smoked Boiled Hams	14 1/2 @ 14 1/2
Boiled Picnic Hams	10 @ 10
Cooked Loin Rolls	18 @ 18

SAUSAGE CASINGS.

F. O. B. CHICAGO.

Rounds, per set	12 @ 12
Middles, per set	40 @ 40
Beef bungs, per piece	5 1/2 @ 5 1/2
Hog casings, as packed	25 @ 25
Hog casings, free of salt	4 @ 4
Hog middles	12 @ 12
Hog bungs, export	12 @ 12
Hog bungs, mediums, each	8 @ 8
Hog bungs, primes	4 @ 4
Hog bungs, narrow	2 @ 2
Imported sheep casings, wide	70 @ 70
Imported sheep casings, medium wide	80 @ 80
Imported sheep casings, medium	50 @ 50
Imported sheep casings, narrow	30 @ 30
Beef weasands, No. 1	5 1/2 @ 5 1/2
Beef bladders, medium	18 @ 18
Beef bladders, small, per doz.	18 @ 18
Hog stomachs, each	4 @ 4

FERTILIZERS.

Dried blood, per unit	\$2.50 @ 2.50
Hoof meal, per unit	2.45 @ 2.45
Concent, tankage, 15% per unit	2.25 @ 2.25
Ground tankage, 12%	2.20 @ 2.20
Ground tankage, 11% per unit	2.10 @ 2.10
Ground tankage, 10% per unit	2.05 @ 2.05
Ground tankage, 8 and 35% ton	2.00 @ 2.00
Ground raw bone, per ton	25.00 @ 25.00
Ground steam bone, per ton	18.00 @ 18.00
Unground tankage, per ton less than ground, 50c.	

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 @ 70 lbs., average	\$27.50 @ 27.50
Horns, black, per ton	25.00 @ 25.00
Horns, striped, per ton	30.00 @ 30.00
Horns, white, per ton	50.00 @ 50.00
Flat shin bones, 35 @ 40 lbs. average ton	45.00 @ 45.00
Round shin bones, 35 @ 40 lbs. average ton	45.00 @ 45.00
Round shin bones, 50 @ 52 lbs. average ton	55.00 @ 55.00
Long thigh bones, 90 @ 95 lbs. average ton	95.00 @ 95.00
Jaws, skulls and knuckles, per ton	25.00 @ 25.00

LARDS.

Prime steam, cash	\$6.97 @ 6.97
Prime steam, loose	6.55 @ 6.55
Neutral	7.75 @ 7.75
Compound	5.70 @ 5.70
Leaf	6.62 1/2 @ 6.62 1/2

STEARINES.

Lard	7 1/2 @ 7 1/2
Oleo, prime	7 1/2 @ 7 1/2
Oleo No. 2	7 @ 7
Mutton	7 1/2 @ 7 1/2
Tallow	5 1/2 @ 5 1/2
Grease	4 1/2 @ 4 1/2

OILS.

Lard oil, extra winter strained, tes.	57 @ 57
Oleo oil, extra	5 1/2 @ 5 1/2
Oleo oil, No. 2	5 1/2 @ 5 1/2
Oleo, stock	6 1/2 @ 6 1/2
Neatsfoot oil, pure, tierces	55 @ 55
Tallow, prime, tierces	48 @ 48

TALLOW.

Edible	5 1/2 @ 5 1/2
Prime city	5 1/2 @ 5 1/2
Choice Country	4 1/2 @ 4 1/2
Packers' prime	5 1/2 @ 5 1/2
Packers' No. 1	4 1/2 @ 4 1/2
Packers' No. 2	4 1/2 @ 4 1/2
Renderers' No. 1	4 1/2 @ 4 1/2

GREASES.

White, choice	5 @ 5 1/2
White "A"	4 1/2 @ 4 1/2
White "B"	4 @ 4
Bone	4 @ 4
House	3 1/2 @ 3 1/2
Yellow	3 1/2 @ 3 1/2
Brown	3 1/2 @ 3 1/2
Glue stock	3 1/2 @ 3 1/2
Neatsfoot stock	3 @ 3

COTTONSEED OILS.

P. S. Y., loose	23 1/2 @ 24
P. S. Y., soap grade	23 1/2 @ 23 1/2
Soap bbls., concn., 63 @ 65% F. A.	2 @ 2
Soap stock, bbls., reg. 50% F. A.	85 @ 90

COOPERAGE.

Tierces	1.22 @ 1.25
Barrels, Oak	1.00 @ 1.02 1/2
Barrels, Ash	.87 1/2 @ .87 1/2

CURING MATERIALS.

Refined saltpetre	4 1/2 @ 5 1/2
Soracic acid, crystal to powdered	10 @ 11
Borax	7 1/2 @ 8 1/2
Sugar—	
Pure open kettle	4 @ 4 1/2
White clarified	4 @ 4 1/2
Plantation, granulated	4 @ 4 1/2
Yellow, clarified	5 @ 5
Salt—	
Ashton, in bags, 224 lbs.	\$2.80 @ 2.80
Eng. packing, in bags, 224 lbs.	1.45 @ 1.45
Michigan, medium, car lots, per ton	3.35 @ 3.35
Michigan, granulated, car lots, per ton	3.75 @ 3.75
Casing salt, bbls., 250 lbs., 2X and 3X	1.00 @ 1.00

NEW YORK CITY

LIVE CATTLE.

Good to choice native steers.....	\$5.35@6.00
Medium to fair native steers.....	4.55@5.25
Poor to ordinary native steers.....	3.75@4.50
Oxen and stags.....	3.00@5.15
Bulls and dry cows.....	1.60@4.30
Good to choice native steers one year ago..	5.20@5.50

LIVE CALVES.

Live veal calves, prime, per 100 lbs.....	\$8.50@8.75
Live veal calves, fair to good, per 100 lbs.	7.25@ 8.25
Live veal calves, com. to med., 100 lbs..	5.00@ 7.00
Live veal calves, small, per 100 lbs.....	3.00@ 4.00
Live calves, fed, per 100 lbs.....	—@ —
Live calves, barnyards, per 100 lbs.....	—@ —
Live calves, yearlings, per 100 lbs.....	—@ —
Live calves, western, per 100 lbs.....	—@ —

LIVE SHEEP AND LAMBS.

Lambs, hothouse, per head.....	\$3.00@4.00
Live lambs, prime, per 100 lbs.....	8.50@ 9.00
Live lambs, common to good.....	7.00@ 8.25
Live sheep, prime, per 100 lbs.....	6.10@ 6.50
Live sheep, common to good, 100 lbs.....	4.75@ 6.00

LIVE HOGS.

Hogs, heavy weights (per 100 lbs.).....	@\$5.80
Hogs, medium.....	@ 6.00
Hogs, light to medium.....	@ 6.00
Pigs.....	6.15@ 6.20
Roughs.....	4.80@ 5.00

DRESSED BEEF.

CITY DRESSED.

Choice native, heavy.....	8½@ 8¾
Choice native, light.....	8 @ 8¼
Common to fair, native.....	6½@ 7¼

WESTERN DRESSED BEEF.

Choice native, heavy.....	7½@ 8¼
Choice native, light.....	7 @ 7½
Native, com. to fair.....	@ 7
Choice Western, heavy.....	@ 7½
Choice Western, light.....	@ 7
Common to fair, Texas.....	@ 6½
Good to choice heifers.....	6½@ 7¼
Common to fair heifers.....	@ 6
Choice cows.....	@ 6½
Common to fair cows.....	5½@ 6
Good to choice oxen and stags.....	6 @ 6½
Common to fair oxen and stags.....	6 @ 6½
Fleshy bologna bulls.....	@ 5
Fresh pork loins, Western.....	10 @11

DRESSED CALVES.

Veals, city dressed, prime, per lb.....	@13
Veals, good to choice, per lb.....	@12
Calves, country dressed, prime, per lb.....	@12
Calves, country dressed, fair to good.....	@11
Calves, country dressed, common.....	8 @10

DRESSED HOGS.

Pigs.....	8½@8¾
Hogs, heavy.....	@7¼
Hogs, 150 lbs.....	7½@7¾
Hogs, 160 lbs.....	7½@7¾
Hogs, 140 lbs.....	@7¾

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.....	@13
Spring lambs, good.....	@12½
Spring lambs, culls.....	@12
Sheep, choice.....	9 @10
Sheep, medium to good.....	8½@ 9
Sheep, culls.....	@ 8

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lb. average.....	10 @10½
Smoked hams, 12 to 14 lbs. average.....	9½@10½
Smoked hams, heavy.....	9½@10½
California hams, smoked, light.....	7 @ 7½
California hams, smoked, heavy.....	7 @ 7½
Smoked shoulders.....	7½@ 7¾
Smoked bacon, boneless.....	9½@11
Smoked bacon (rib in).....	9½@10½
Dried beef sets.....	13 @13½
Smoked beef tongues, per lb.....	16½@18½
Pickled bellies, heavy.....	8 @ 8½

BONES, HOOFS AND HORNS.

Round shin bones, av. 50@60 lbs. cut,	per 100 bones, per 2,000 lbs.....\$55.00@60.00
Flat shin bones, av. 40@45 lbs. cut, per	100 bones, per 2,000 lbs.....42.00@ 45.00

Hoofs, per ton.....	15.00@ 25.00
Thigh bones, av. 90@95 lbs. cut, per	100 bones, per 2,000 lbs.....75.00
Horns, 7½ oz. and over, steers, first	quality, per ton.....300.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	60@70c. a piece
Fresh cow tongues.....	30@45c. a piece
Calves' head, scalded.....	30@40c. a piece
Sweet breads, veal.....	25@75c. a pair
Sweet breads, beef.....	15@25c. a pound
Calves' liver.....	25@50c. a piece
Beef kidneys.....	7@12c. a piece
Mutton kidneys.....	1½@ 3c. a piece
Livers, beef.....	4@ 5c. a pound
Oxtails.....	5@ 7c. a piece
Hearts, beef.....	8@12c. a piece
Rolls, beef.....	10@12c. a pound
Tenderloin beef, Western.....	15@25c. a pound
Lambs' fries.....	6@10c. a pair
Fresh pork loins, city.....	9½
Fresh pork loins, Western.....	9

BUTCHERS' FAT.

Ordinary shop fat.....	2½@ 3
Suet, fresh and heavy.....	4 @ 5
Shop bones, per cwt.....	@25

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	30
Sheep, imp., wide, per keg, 50 bundles....	\$40.00
Sheep, imp., medium, per bundle.....	40
Sheep, imp., per bundle, narrow.....	44
Sheep, imp., Russian Rings.....	44
Hog, American, in tes. or bbls., per lb.,	f. o. s.....48
Hog, American, kegs, per lb. f. o. s.....	48
Beef, rounds, per set, f. o. b. Chicago.....	12
Beef, rounds, per set, f. o. b. New York...	13
Beef, rounds, per lb.....	3
Beef, bungs, piece, f. o. b. New York.....	6½
Beef, bungs, per lb.....	5
Beef, middles, per set, f. o. b. Chicago.....	40
Beef, middles, per set, f. o. b. New York...	42
Beef, middles, per lb.....	@ 6½
Beef weasands, per 1,000 No. 1's.....	@ 5½
Beef weasands, per 1,000, No. 2's.....	2½@ 3

SPICES.

	Whole.	Ground.
Pepper, Sing., white.....	18	10½
Pepper, Sing., black.....	13½	15
Pepper, Penang, white.....	17½	19
Pepper, red, Zanzibar.....	15	18
Pepper, shot.....	15	—
Allspice.....	7	10
Coriander.....	9	11
Cloves.....	18	18
Mace.....	45	50

SALTPETRE.

Crude.....	4 @ 4½
Refined—Granulated.....	4½@ 4¾
Crystals.....	4½@ 5½
Powdered.....	5 @ 5½

GREEN CALFSKINS.

No. 1 skins.....	\$ 20
No. 2 skins.....	18
No. 1 B. M. skins.....	18
No. 2 B. M. skins.....	16
No. 1, 12½-14.....	2.00
No. 2, 12½-14.....	1.75
No. 1 B. M., 12½-14.....	1.80
No. 2 B. M., 12½-14.....	1.60
No. 1 kips, 14-18.....	2.25
No. 2 kips, 14-18.....	2.00
No. 1 B. M. kips.....	2.00
No. 2 B. M. kips.....	1.75
No. 1 heavy kips, 18 and over.....	2.00
No. 2 heavy kips, 18 and over.....	2.35
Branded skins.....	1.12
Branded kips.....	1.50
Heavy branded kips.....	1.75
Ticky skins.....	1.12
Ticky kips.....	1.00
Heavy ticky kips.....	1.80
No. 3 skins.....	1.15

DRESSED POULTRY.

FRESH KILLED.

Turkeys—Western, average best.....	@20
Western, mixed, fair to good.....	18 @19
Western, poor.....	15 @17
Chickens—Phila., 9@10 lbs. to pair, per lb.20	@21
Phila., mixed sizes, per lb.....	16@18
Pa., 7@8 lbs. to pair, fancy, per lb.....	@17
Pennsylvania, mixed sizes.....	14@15
Western, coarse and staggy.....	10@12
Fowls—Western, dry-picked, avge best, dry	@14
Western, scalded, average best, dry.....	@14
Western, average best, iced.....	@14
Southern and Southwestern, av. best, dry.	@13½
Southern and Southwestern, iced.....	13@13½
Western and Southern fowls and chickens,	poor to fair.....10@12
Old cocks, per lb.....	10 @10½
Squabs—Prime, large, white, per dozen....	@3.00
Mixed, per dozen.....	2.25@
Dark, per dozen.....	1.50@1.75

FROZEN.

Turkeys—Toms, No. 1, per lb.....	22 @23
Hens, No. 1, per lb.....	21 @22
No. 2, per lb.....	16 @18
Old toms, per lb.....	19 @20
Old hens, per lb.....	19 @20
Capon—Choice, large, per lb.....	20 @21
Broilers—Dry-picked, No. 1, per lb.....	20 @23
Scalded, No. 1, per lb.....	18 @20
Chickens—Roasting soft-meated, per lb.....	@17
Roasting, average No. 1.....	15 @16
Medium grades, per lb.....	13 @14
Fowls—No. 1, per lb.....	13½ @14
No. 2, per lb.....	9 @11
Old roosters, per lb.....	10 @10½
Ducks—No. 1, per lb.....	15 @16
Geese—No. 1, per lb.....	12 @13

LIVE POULTRY.

Chickens, nearby and Western, per lb.....	@12
Fowls—Per lb.....	@15
Roosters—Old, per lb.....	@10
Turkeys—Old, per lb.....	@16
Ducks—Western, average, per pair.....	70 @80
Southern, average per pair.....	60 @65
Geese—Western, average, per pair.....	1.37@1.60
Southern, average, per pair.....	1.25@1.57
Live Pigeons—Per pair.....	@20

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$23.00 @26.00
Bone meal, raw, per ton.....	25.00 @25.50
Nitrate of soda—future.....	@ 2.35
Nitrate of soda—spot.....	@ 2.35
Bone black, discard, per ton.....	11.00 @20.00
Dried blood, N. Y., 12@13 per cent.	ammonia.....2.85 @ 3.00
Dried blood, West. high grade, fine	ground, c. f., N. Y.....2.85 @ 2.87½
Tankage, 9 and 20 p. c., f. o. b.	Chicago.....21.00 @23.00
Tankage, 8 and 20 p. c., f. o. b.	Chicago.....18.00 @19.00
Tankage, 7 and 30 p. c., f. o. b.	Chicago.....16.00 @16.00
Tankage, 6 and 35 p. c., f. o. b.	Chicago.....15.00 @16.00
Garbage tankage, f. o. b. New York.	Fish scrap, dried, 11 p. c. ammonia
and 15 p. c. bone phosphate.....	29.00 @30.00
Wet, acidulated, 6 p. c. ammonia,	per ton.....14.00 @15.00
Azotine, per unit, del. New York.....	3.00 @ 2.05
Sulphate ammonia gas, for shipment,	per 100 lbs.....3.25 @ 3.25
Sulphate ammonia gas, per 100 lbs.	spot.....3.25 @ 3.25
Sulphate ammonia bone, per 100 lbs.	So. Carolina phosphate rock, ground,
per 2,000 lbs., f. o. b. Charleston.	So. Carolina phosphate rock, undried,
f. o. b. Ashley River, per 2,400 lbs.	The same, dried.....3.75 @ 4.00
POTASHES, ACCORDING TO QUANTITY.	
Kalinit, shipment, per 2,240 lbs.....	\$5.95 @ 5.95
Kalinit, ex-store, in bulk.....	9.60 @10.65
Kieserit, future shipment.....	7.00 @ 7.25
Muriate potash, 80 p. c., ex-store....	1.50 @ 1.95
Muriate potash, 80 p. c., future ship-	ment.....1.50 @ 1.95
Double manure salt (45@48 p. c.,	less than 2½ p. c. chloride), to ar-
rive per lb. (basis 48 p. c.).....	1.00 @ 1.20
Sulphate potash, to arrive (basis 80	p. c.).....2.00 @ 2.15
Sylvinit, 34 to 36 p. c., per unit. S.P.	30 @ 30

LIVE STOCK REVIEWS.

CHICAGO

(Special Letter to The National Provisioner from the Bowles Livestock Commission Co.)

Chicago, March 29.

CATTLE.—Receipts of cattle the first three days this week, 42,360, being about 5,000 less than the corresponding period last week. Shipments, 15,694, against 17,416 the same period last week. The daily receipts were: Monday, 21,593; Tuesday, 4,767; Wednesday (estimated), 16,000. Under the moderate supplies, prices have advanced 10@25c.; the medium grades of fat steers are 15@25c. higher, but the top kinds show little or no improvement. Cows and heifers advanced 10 @20c., and stockers and feeders are 10@15c. higher. There has been an active demand from all sources, and the supplies have been well cleared early each day. The markets Monday and Wednesday were practically over by noon, best cattle to-day, \$6.30 for 63 Shorthorns averaging 1,490 lbs.; about 6 loads averaging 1,397 and 1,607 lbs. went at \$6.25, and a liberal number of good cattle at \$5.75 and upwards, the bulk of the medium to good cattle sold at \$5.15@5.50, choice export cattle sold up to \$5.70, good dressed beef steers \$4.90@5.20, light unfinished kinds, \$4.50@4.75; inferior little killers down to \$4. More than half of the steer cattle sold above \$5. Some fancy Angus heifers sold Tuesday at \$5.05, but choice lots sold largely from \$4.45@4.90; good export cows, \$3.75@4.40; medium beef cows, \$3@3.65; common, \$2.50@2.85; medium heifers, \$3.10@3.60; common, \$2.50@3; export bulls, \$3.35@4.10; bologna, \$2.70@3.20; good fat bulls, \$2.90@3.40; canners and cutters, \$1.50@3.25; choice veal calves, \$6@6.25; medium, \$5@5.50; common, \$3.50; heavy, \$2@3.50; best heavy feeders, \$5. A liberal number sold at \$4.65@4.85; medium, \$4.25@4.65. Light receipts and active markets are expected to be the rule during the coming month.

HOGS.—Receipts of hogs for the first three days of this week show an increase of about 15,000, as compared with the same time of last week. Monday's official receipts were 40,397, and the market on that day was rather uneven, but on the whole would average about 5c. lower than the high market of Saturday. Tuesday's official receipts were 23,925, which was somewhat more than the trade expected. Most of the early sales were made about 5c. lower, the demand weakened, however, and extreme late sales were made 10c. lower. Armour & Company buying a drove late in the day that cost \$5.31, and were better than their drove on Monday that cost \$5.41. Swift & Company put up a drove that averaged 231 lbs. at \$5.34, against \$5.42 for the same drove on the day before. Receipts to-day (Wednesday) estimated at 30,000, with 7,000 carried over from yesterday. The supply was more than the demand called for, and prices were again 5c. lower, and in some cases more, the top of the market to-day being \$5.40, against \$5.47½ yesterday, with the bulk of the hogs selling to-day at \$5.30@5.35. The quality of our receipts is better than for some time past, the supply of medium weight butchers being quite large with a very fair supply of packers and shippers, which we think indicates a liberal supply of hogs throughout the country. Prices look dangerously high to us, and we are advising all our friends to act with great caution. We quote to-day's prices as follows: Good to best medium and heavyweight shippers, \$5.35@5.40; good to best heavy packing grades, \$5.30@5.35; good to prime mixed, \$5.25@5.35; selected light hogs, \$5.20@5.27½; pigs, \$4.50@5.

SHEEP.—Receipts of sheep and lambs fairly liberal this week, but the demand from all sources is quite strong and an active trade prevailed. Prime Colorado wool lambs sold Monday, Tuesday and Wednesday of this week at \$7.80, and good to choice at \$7.50@7.75. Feeders took some right fleshy lambs, good shearers, around \$7.25. Quite a little clipped stock coming and prime clipped lambs

selling up to \$6.75, with good to choice at \$6.25@6.50. Not many yearling wethers offered this week. Prime handy weight Mexicans in the wool up to \$7.10. Good to choice Westerns worth \$6.65@6.90. Clipped yearlings, \$5.50@6. A good many woolled sheep offered about evenly divided between ewes and wethers. Some prime woolled ewes to-day sold at \$6, but good to choice are quotable at \$5.50@5.85. Handyweight wethers were scarce and choice are worth \$6.15@6.25, one lot making \$6.40. Choice heavy wethers sold up to \$6.30. Exporters took a few prime heavy lambs at \$6.25 clipped. Among the offerings quite a number of clipped wethers on the Western order, these selling readily around \$5.50, with choice clipped native ewes at the same figure and Westerns at \$5@5.25, good to best; fair, \$4.50@4.75. A free marketing of lambs is expected during the coming two or three weeks, and this will about clean the feed lots of Colorado. It looks as though a shortage would be experienced after this time and a higher market result.

KANSAS CITY

(Special Wire to The National Provisioner.)

Kansas City, March 31.

CATTLE.—Receipts this week, 31,100; last week, 35,500; same week last year, 31,000. The cattle market has taken another step forward this week, and is strong to a quarter higher. Beef steers jumped up 15@25c. Wednesday, when \$6 was the top, the highest since December 6 last. A number of sales have been made at \$5.65@5.85, and the bulk of steers now sell above \$5. Straight heifers reached \$5.15; heifers, including a few steers, \$5.30; bulk of heifers, \$4.25 and up; best cows, \$4@4.50; fair to good, \$3.50@4.25; quarantines, 15@20c. higher; topy steers, \$3.90@4.70. Good stockers and feeders are equal to the best time this spring. Veals, \$5.50@6.

HOGS.—Receipts this week, 41,700; last week, 45,200; same week last year, 36,700. Hog prices have fluctuated more than usual this week; very sensitive to volume of supply; prices to-day steady with last Friday, at \$5.30 for tops; bulk, \$5.10@5.25; lights up to \$5.20; pigs, \$4.30@4.85. Quality all during March has been the best on record here for that month. More Northern hogs have been included, attracted by slightly higher values here, as compared with up-river markets.

SHEEP.—Receipts this week, 25,600; last week, 15,000; same week last year, 18,800. Sheep and lamb supplies have been uneven, a big run causing a break Monday, and small supply almost restoring prices since. Lambs and yearlings make up most of the receipts, and show a slight weakness as compared with a week ago. Wethers and ewes are scarce and firm; lambs bring \$7@7.35; yearlings, \$6@6.75; wethers, \$5.50@5.90; ewes, \$5@5.75.

HIDES are unchanged; green salted, 9c.; side brands, 8½c.; bulls and stags, 7½c.; uncured 1c. less; part cured, ½c. less; glue, 5c.; dry flint butcher, 15@17c.

Packers' purchases this week:

	Cattle.	Hogs.	Sheep.
Armour	2,631	11,408	3,944
Cudahy	2,254	7,932	1,424
Fowler	1,393	1,148
Morris	2,377	6,570	4,330
Ruddy	390	535
Schwarzschild	3,564	6,433	2,119
Swift	2,935	8,673	4,336

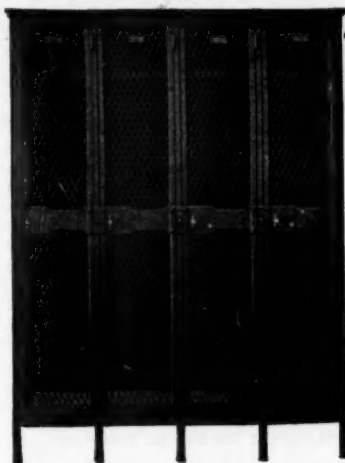
OMAHA

(Special Letter to The National Provisioner.)

South Omaha, March 28.

The receipts of cattle have been about up to the average lately and the quality appears to be improving slowly, although the offerings are not as good as they usually are at this time of the year. There has been a satisfactory demand for several days and prices have firmed up very materially, the advance since the close of last week amounting to 15@20c.

LOCKERS



EXPANDED METAL OR SHEET STEEL

Write for Catalogue

MERRITT & CO.
1009 Ridge Ave., PHILA.

Some choice 1,500 pound beefs brought \$5.50 to-day and prime steers would bring \$5.75 or more. Fair to good 1,200 to 1,400 pound beefs are selling largely around \$4.60@5.10, with common to fair grades at \$4@4.50. The market for cows and heifers has been fully as strong as the fat cattle trade, and the advance in prices has been fully as much. Prime fat heifers sell as high as \$4.40, but the bulk of the fair to good butcher and beef stock is selling around \$3.50@4, with canners down around \$1.75@2.85. Activity continues to characterize the trade in stockers and feeders and prices are very high for all desirable offerings. The low grades and off quality steers are discriminated against and are selling at comparatively low figures. The demand is very strong at present, but as farmers will be busy in the fields in a few days dealers are looking for the demand to let up shortly. Good to choice feeding steers are bringing \$4.20@4.70, with fair to good stock at \$3.75@4.15 and common to fair kinds at \$2.75@3.50. The volume of business in feeders has been of very fair proportions for this time of the year. Receipts have included a liberal sprinkling of Western hay-fed cattle this week and they are selling at very satisfactory prices, most of them going to the feeder buyers at better prices than the killers will pay. Common to best grades sell at a range of \$4@4.75.

Although hogs have been coming in very freely prices have been the highest of the year, and there is a good strong undertone to the trade. Packers evidently want the hogs and they have been disappointed all spring at the size of the receipts. There has also been a vigorous shipping demand right along and offerings have been well cleaned every day.

PREMIUM SCALES OF THE WORLD
FOR HAY, GRAIN, STOCK, COAL, ETC.

Official Stock Scales at World's Fair, Chicago, 1893, at Omaha, 1896-1899, and all Thoroughbred Stock Shows. Best and Cheapest reliable U. S. Standard Scales made. Many useful articles for Farmers at Wholesale prices. Catalogues, prices and information furnished free.
CHICAGO SCALE COMPANY
282, 294 & 296 Jackson Boulevard, Chicago, Illinois

Local prices have been such for some time as to encourage shipments from east of here, and about 40 per cent. of the receipts come from Western Iowa points. Weight apparently cuts very little figure at present and as the hogs are averaging up very good as a rule in point of quality the range of prices is narrow. Compared with a week ago prices show little noteworthy change. There were about 10,000 hogs here to-day with prices a shade easier. Tops brought \$5.15 and the bulk of the trading was around \$5.07@5.12.

Sheep and lambs are selling about 10@15c. higher than a week ago, and the supply hardly begins to meet the demand. This is particularly true of the good fat stock, while at times the market is rather weak on the half fatted grades. It is getting toward the end of the season for fat stock and prices are holding up remarkably well under the circumstances. Choice fat lambs are quoted up to \$7.50, with yearlings up to \$6.75, wethers at \$5.85 and ewes at \$5.95. There has been little trading in feeder sheep and lambs, but prices have been firmly held.

ST. JOSEPH

(Special Wire to The National Provisioner.)

So. St. Joseph, Mo., March 28.

Supplies of cattle thus far this week have been of moderate proportion, but only a nominal number of export and shipping steers were included in the receipts; choice 1,562 lb. and 1,576 lb. beefs were purchased for the New York trade at \$5.75, and a good class of export steers weighing from 1,250 upward have been selling largely at \$5.25 to \$5.35, while the light and medium killers have been selling largely at \$4.75 to \$5.20. As compared with the last of last week these figures indicate a little strength, the gain of yesterday having been lost at the close to-day. The demand is exceptionally strong for all grades of steers and prices for all kinds are relatively higher than at any other Missouri River market. The supply of butcher stock has not been in excess of the demand and activity has marked trading on all classes. Choice to fancy heifers are quotable at \$4.50 to \$4.75, with the bulk of the pretty recent fleshy kinds selling around \$3.75 to \$4.25. Good fat cows are selling largely at \$3.75 to \$4.10, with choice corn fed offerings up to \$4.25. Bulls and stags are nominally steady at \$2.40 to \$4.35, and veals show a little change at \$2.50 to \$6.00 for common to choice. Owing to the near approach of the season when young cattle go onto grass and summer feed lots are filled, the demand for all classes of stock and feeding cattle has been very keen, and prices are 5c. to 10c. lower than at the close of last week. While well bred warmed up steers have sold up to \$5.00, to go back to the country to the feed lots to be finished, a pretty good style of cattle have been selling largely at \$4 to \$4.25, with good weightier kinds of fair flesh at \$4.30 to \$4.50. Yearlings and calves are ranging from \$2.75 to \$4.35, with the bulk of the desirable offerings selling at \$3.75 to \$4.10.

The tendency of the hog market this week has been downward, but regardless of liberal supplies packers have been unable to reduce values any considerable extent. Prices to-day range from \$5.05 to \$5.30, with the bulk selling at \$5.12½ to \$5.25. While dealers are not anticipating a much lower market, they do not feel that conditions warrant any permanent increase in values and are advising their customers not to hold back anything that is ready for market, they are also cautioning their customers to use the greatest care in loading, as it is now approaching the heated term and big hogs especially are very liable to suffocation while in transit unless carefully loaded. Receipts are quite liberal, but our packers could use a great many more without impairing the healthy tone of trade.

Receipts of sheep to-day aggregate 13,445, which is the largest day's receipts of record for this market, and as supplies yesterday exceeded 11,200, packers were inclined to

break the market to-day on lambs, which predominated in the receipts. Offerings were largely light in weight of fair to good quality and with wet fleeces, and while the trade was quite active, values were 10c. to 15c. lower than yesterday, and in some cases more. The extreme top on lambs was \$7.30, with the larger proportion selling from \$7.10 to \$7.20. Wethers and ewes held fully steady and were in good demand, former selling at \$5.85, and the latter at \$5.60.

SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centers for the week ending March 25:

CATTLE.	
Chicago	26,518
Omaha	11,926
Kansas City	14,855
St. Joseph	7,848
Cudahy	516
Sioux City	3,282
South St. Paul	2,527
New York and Jersey City	8,185
Fort Worth	4,961
Detroit	1,311
Buffalo	3,875

HOGS.	
Chicago	86,948
Omaha	41,679
Kansas City	52,433
St. Joseph	29,738
Cudahy	2,963
Sioux City	15,529
Ortunwa	7,088
Cleveland	9,500
Cedar Rapids	5,390
Bloomington	1,874
South St. Paul	17,180
Indianapolis	10,445
New York and Jersey City	42,171
Fort Worth	12,544
Detroit	4,952
Buffalo	32,390

SHEEP.	
Chicago	55,440
Omaha	22,160
Kansas City	14,209
St. Joseph	25,391
Cudahy	238
Sioux City	512
South St. Paul	4,067
New York and Jersey City	11,761
Fort Worth	1,233
Detroit	1,487
Buffalo	31,000

NEW YORK LIVESTOCK

WEEKLY RECEIPTS TO MARCH 27, 1905.

	Bees.	Cows.	Calves.	Sheep.	Hogs.
Jersey City	1,587	—	1,006	7,914	16,284
Sixtieth st.	1,210	56	2,712	3,962	—
Fortieth st.	—	—	—	—	22,787
Lehigh Valley	6,465	—	—	—	—
Weehawken	1,390	—	—	1,020	—
Scattering	—	60	88	45	3,100
Totals	10,622	116	3,896	12,941	42,171
Totals last week	10,072	138	4,421	12,262	32,113

WEEKLY EXPORTS.

	Live cattle.	Live sheep.	Qrs. of beef.
Schwarzschild & S., So. Armenia	425	—	1,528
Schwarzschild & S., So. Minnetonka	375	—	1,900
Schwarzschild & S., So. Idaho	152	—	—
Schwarzschild & S., So. St. Louis	—	—	1,300
J. Shambert & Son, So. Armenian	425	1,120	—
J. Shambert & S., So. Minnetonka	375	—	—
J. Shambert & Son, So. Idaho	250	—	—
J. Shambert & S., So. Tintoretto	310	—	—
J. Shambert & Son, So. Cearense	20	—	—
Morris Beef Co., So. Armenian	—	—	2,800
Morris Beef Co., So. Minnetonka	—	—	3,000
Morris Beef Co., So. St. Louis	—	—	1,200
Swift Beef Co., So. Cedric	—	—	1,800
Armour & Co., So. St. Louis	—	—	1,400
F. Hutchinson, So. Exeter City	150	—	—
Cudahy Packing Co., So. Lucania	—	—	1,500
Miscellaneous, So. Bermudian	71	60	—
Totals exports	2,553	1,180	16,128
Total exports last week	1,931	1,110	14,504
Boston exports this week	1,515	1,209	8,200
Baltimore exports this week	740	1,000	—
Philadelphia exports this week	1,451	—	—
Portland exports this week	1,016	—	—
St. John's exports this week	751	—	—
To London	2,757	—	9,200
To Liverpool	3,429	3,389	15,128
To Glasgow	763	—	—
To Bristol	150	—	—
To Hull	100	—	—
To Antwerp	121	—	—
To Manchester	310	—	—
To South Africa	75	—	—
To Para, Brazil	20	—	—
To Bermuda and West Indies	71	60	—
Totals to all ports	8,026	3,389	24,328
Totals to all ports last week	10,199	5,211	27,074

GENERAL MARKETS

LARD IN NEW YORK.

Western steam, \$7.15@7.35; city lard, 6 11-16@6¾c.; refined, Continent, tes., \$7.35; do., South America, tes., \$8; do., kegs, \$9; compound, \$4.87½@5.

HOG MARKETS ON MARCH 31.

CHICAGO.—Receipts, 17,000; strong; generally 5c. higher; \$5.05@5.40.

KANSAS CITY.—Receipts, 5,000; strong; \$4.95@5.32½.

OMAHA.—Receipts, 6,500; strong; 5c. higher; \$5@5.20.

INDIANAPOLIS.—Receipts, 4,000; lower; \$5@5.40.

ST. LOUIS.—Steady to strong; \$3.50@5.45.

CLEVELAND.—Receipts, 30 cars; active; \$5.50.

EAST BUFFALO.—Receipts, 3,500; slow; \$5.20@5.65.

LIVERPOOL.

(By Cable to The National Provisioner.)

Liverpool, March 31.—Beef, extra India mess, 71s. 3d.; pork, prime mess, Western, 61s. 3d.; shoulders, 31s.; hams, s. c., 43s.; bacon, c. c., 39s.; do., short ribs, 40s. 6d.; do., long clear, 28-34 lbs., 38s. 6d.; do., 35-40 lbs., 38s.; backs, 38s.; bellies, 39s.; tallow, 23s.; turpentine, 41s. 6d.; rosin, 7s. 6d.; lard, prime Western, tes., 35s.; do., American refined, 24-lb. pails, 35s. 6d.; cheese, white, 59s.; do., colored, 56s. 6d.; American steam lard (Hamburg), per 50 kilos, 35½ marks; tallow, Australian (London), 25s.; cottonseed oil, refined (Hull), 15s. 7½d.; Calcutta linseed (London), 36s. 3d.; linseed oil (London), 16s. 9d. Petroleum, refined (London), 5s. 8d.

OLEO AND NEUTRAL LARD.

As stated in these columns last week, the oleo market has grown very quiet after the great rush for business during March, and at this time of writing prices have not eased off, but the demand has become small and it looks now as if oleo is going to be a little cheaper. The churners in Europe are for the present well supplied with oil for April shipment and are in no hurry to buy. The same applies to neutral lard, of which a good deal has been bought and market for this article also very quiet, while cotton oil has maintained its own the last few days.

FRIDAY'S CLOSINGS.

Provisions.

The products markets were stronger from the opening and a little higher, but speculation continued dull. Moderate hog receipts for the day and 5c. better prices for them tended to the firmer holding of the products prices.

Cottonseed Oil.

It is said that the export buying for yesterday included 10,000 barrels refined for Marseilles. The large sales of crude latterly as reported made by the mills, and as noted in our weekly review in another column, were, it is understood, largely to refiners, and which would appear probable, as the sales are mainly for April delivery, and because of the early delivery that they would not be on speculation. The New York to-day for the refined oil was about steady and quieter. New York prices for prime yellow: April, at 26@26¼c.; May, at 26½@27c.; July, at 27@27¼c.; August, at 27@27½c.; September, at 28@28¼c. After the "call" the market was easier, with 500 bbls. May sold at 26¼c., and further offered at 26½c., and April offered at 26c.

Tallow.

Steady at 4¾c. for city, hhds. Weekly contract delivered of city hhds. were made at 4¾c. At Chicago sales of city renderers made at 4¾c. and of edible at 5¾c. Of yellow grease at 3¾c., and of house at 3¼c.

Oleo Stearine.

Quiet and firm at 7½c. bid in New York and 7¾c. in Chicago.

(Additional markets on page 37.)

RETAIL SECTION

INVESTIGATING THE RETAILERS.

It is understood to be one of the objects of the present grand jury investigation in Chicago to look into the retail end of the meat business and to probe the matter of the shop butcher's profits. After the grand jury gets through with the packers it is said it will have a number of witnesses before it on the retail question. Most shop butchers are in the habit of declaring that their profits are so small that the investigators would have to take a microscope to find them.

CONVICTED FOR SELLING OLEO.

Andrew Walsh, of Newark, N. J., was sentenced this week in the court of Special Sessions in Brooklyn to jail for three months for selling oleomargarine for butter. This was the first jail sentence imposed for violation of the agricultural law in more than two years, and the first conviction for violation of the oleomargarine act since the passage of the Federal statute imposing a tax of 10 cents a pound. Walsh was convicted twice on similar charges in 1901, but got off each time with a fine.

DRESSED POULTRY BILL KILLED.

The Massachusetts bill to prohibit the sale of undrawn poultry was killed in the legislature last week by a decisive vote. A practical demonstration of poultry dressing made by one of the legislators was such a striking argument against the bill that it was killed at once. Representative Stevens of Somerville, formerly president of the Massachusetts State Retail Grocers' Association, displayed in the course of the debate a dressed hen and rooster. Holding these up to the view of the members and extracting the entrails, he gave a demonstration of the effects of shipping dressed poultry in refrigerator cars, claiming the present method to be for public health. The passage of the bill would have declared, drive the business away from Massachusetts. Impressed by Mr. Stevens' vivid presentation of the subject, the House gave its verdict in his favor, rejecting the bill by a vote of 39 yeas and 91 nays.

TO LICENSE BUTCHERS.

The movement to regulate the retailing of meats by a system of licenses or registration of butchers has been general this winter, and at least two State legislatures are now considering bills to this end. The New York measure, referred to last week, provides for registration of every retailer with a State board before he can do business. The bill provides also that the whole matter is to be practically within the control of the State Retailers' Association. That is, the Governor must appoint the board from a list furnished him by the association. This would put it

in the power of the association to run the retail meat business of the State about as it pleased, because it could have the board refuse a license to any dealer who was not an association member, or who had displeased it in any way. Whether this feature of the bill will help to secure its passage at Albany remains to be seen.

In Michigan a measure is also before the Legislature requiring the licensing of all butchers, and there, too, it is sponsored by the State association. The regulation of the retail trade is to be desired by consumers as well as dealers, and the progress of the license movement will be watched with interest by all concerned.

TO REPAIR MIRRORS.

Scratched or otherwise marred mirrors about the butcher shop always indicate a lack of proper care of the premises, in view of the fact that with but a little work such blemishes may be easily obliterated.

To accomplish this remove the silvering from the glass around the scratch, so that the clear space will be about a quarter of an inch wide. Thoroughly clean the clear space with a clean cloth and alcohol; near the edge of a broken piece of looking glass mark out a piece of silvering a little larger than the clear space on the mirror to be repaired. Now place a very minute drop of mercury on the center of the patch and allow it to remain for a few minutes, clear away the silvering around the patch, and slide the latter from the glass. Place it over the clear spot on the mirror and gently press it down with a tuft of cotton. This is a difficult operation, and we would advise a little practice before trying it on a large mirror.

INTOXICATED PARIS STEAKS.

Kickers at the quality of steaks served in New York restaurants should be compelled to patronize similar institutions in Paris, where a single experience would bring a realization of the real excellence of American meats. In Paris restaurants, where a beef-steak is supplied at a low price, if the customer does not receive horseflesh for beef, he gets a steak cut from an animal that has been fattened, not in the open air, but in the stable, on pulp malt, and various kinds of refuse. The fat of such animals is yellow, soft, and watery, and when the pulp has not been properly absorbed it frequently presents symptoms of alcoholic intoxication.

The technical term among butchers for these animals is "rotten," which is a significant indication as to their nutritive value. Pork breeding is frequently accomplished with the aid of cheese-parings, tainted milk, refuse from tanneries, and similar rubbish, and in certain parts of France, the pigs perform the office of scavengers.

LOCAL AND PERSONAL.

Phil McArdle, of Spokane, Wash., has been succeeded as local manager for Schwarzschild & Sulzberger by Geo. S. Kingsbury.

A. Schweiger has purchased the meat market of Walter & Kennedy at Lafayette, Ore.

The Butte Meat and Provision Company has discontinued its store at Butte, Mont.

John and William Morgan have opened a market at Aberdeen, Wash.

C. A. Packenham, of Chehalis, Wash., has sold his shop to B. Buchile.

Vertner & Brown have opened a market in Waterville, Wash.

J. R. Lloyd has purchased the market of W. F. Hartman at Athol, Kas.

Welsh & Boyle have been succeeded in the meat business at Pawnee City, Neb., by Chas. M. Welsh.

C. J. Roswall, of Esbon, Kas., has sold his shop to Jochum & Bobat.

Bent & Woltzmen, of Castle Rock, Colo., have succeeded to the business of the Bent Meat and Grocery Company.

Hatch & Hipps have been succeeded in business at Greeley, Colo., by Hipps Bros.

W. P. Green has purchased the market of L. P. Cox at Breckenridge, Mo.

A. J. Clemens will open a market at Chanute, Kas.

D. Martin has sold a half interest in his shop at Sharon Springs, Kas., to Arthur Mather.

T. Kelley has purchased the market of D. W. Brownings & Son at Eddyville, Neb.

Chas. H. Davis has been succeeded in the business at Franklin, Neb., by Davis & Tibbets.

The market of W. M. Brown at Seward, Neb., has been destroyed by fire.

W. M. Hobbs has purchased the business of J. B. Sears at Burlington Junction, Kas.

John Lang has succeeded to the meat business of Lang & Mann in DuBois, Neb.

J. J. Morse, of Henderson, Neb., has sold his shop to Wolfe & Dick.

E. Bledsoe has been succeeded in the meat business of Arkadelphia, Ark., by Richardson & Bledsoe.

Frank Ellis and others are building a new meat market at Coffeyville, Kas.

J. R. Fisher, of Cimarron, Kas., has sold his market to John Pendarvis.

Harry Sherman, of Waldron, Kas., has opened a new shop.

N. B. Barnes has sold his shop at Rushville, Neb., to M. Musser.

John Fell has succeeded to the meat and grocery business at Colorado Springs, Colo., of Ferguson & Fell.

The death is reported of W. Walton, of the grocery and meat firm of W. Walton & Company, of Leadville, Colo.

John A. Adcock has purchased the market and store in Clinton, Ia., of John F. Callender.

J. F. Smart, of Stockport, Ia., has sold his market to J. A. Stangy.

W. D. Graham has purchased the interest of his partner, W. A. Beaver, in the City Meat Market at Weiser, Ida.

Grimes & Son have opened a market at Isabel, Kas.

Foudray & Mosbarger have engaged in the meat business at Mulvane, Kas.

W. O. Mays & Bro. have opened a shop at Pleasanton, Kas.

Glick & Company have engaged in the meat business in St. Marys, Kas.

Jensen & Beaver have succeeded to the market of J. C. Jensen at Kennard, Neb.

Clark & Fleischer have been succeeded in

the meat and grocery business, of Tulsa, I. T., by J. H. Fleischer & Company.

J. E. Hupp has sold a half interest in his market in Watonga, Okla., to Wm. Timmons.

W. F. Moss has purchased the meat business of E. B. Walter at Marianna, Ark.

M. Thomas has succeeded to the meat markets of A. P. Van Burgh and T. O. Thompson in Holbrook, Neb.

Yeager & Griffith, of Utica, N. Y., are arranging to open a new market.

The Retail Grocers' and Butchers' Association of Nashville, Tenn., are arranging for a Pure Food Show in Nashville, May 22 to June 5.

Henry Neuhoft, of Nashville, Tenn., has bought the Tulane market of George Lingner.

The Butchers' and Grocers' Association of Meriden, Conn., has sent delegates to the legislature to oppose the use of trading stamps.

M. M. Best, of Philmont, N. Y., has sold his market to J. J. Young.

George Cornes, of Brockport, N. Y., has purchased the market of Charles A. Swain at Middleport, N. Y.

Chase & Baldwin, of Schenectady, N. Y., have dissolved partnership. Mr. Chase continues the business.

John J. Burke has sold his market in Hoosick Falls, N. Y., to Louis Levine.

A. B. Peck has opened a market at Ansonia, Conn.

PROCESS OF "SHREDDING" WHEAT.

The fact that nearly a hundred thousand visitors to Niagara Falls passed through the "home of shredded wheat" last year and witnessed the process of cooking, curing and shredding wheat is significant of the popular interest in this unique industry. Two questions naturally suggest themselves to the visitor to this plant: How do they "shred" wheat and why do they "shred" it?

Those who have not gone through the wonderful plant at Niagara Falls and who have not actually witnessed the process of shredding wheat can form but an imperfect idea of this remarkable industry. Some idea of the cleanliness and wholesomeness of the product may be gained from the fact that the wheat passes through twenty-two cleaning and dusting machines before it is steam-cooked ready for shredding.

Each of these machines has a particular work to do. One of them, called a "stoner," removes all the little stones that get mixed up with the wheat. It is a most ingenious mechanism and utilizes the principle of gravity in separating the stones from the wheat. Another takes out the "wild oat," another removes the wild mustard seed, another takes out the cockle, others collect the dust, straw, cheese and other foreign substances. After cooking the wheat is spread upon clean white cloths to dry for 16 hours and then run through shredding machines which draw it out into fine porous shreds. These shreds are formed into biscuits and baked.

And why do they cook and "shred" the wheat? Of course there's a reason for it. The wheat is cooked so as to make the starch of which the white flour is largely composed soluble and easy to digest. The "shreds" also contain all the rich nutriment in the outer coats of the wheat kernel—which are not found in white flour. These "shreds" are not only light and porous, readily absorbing the saliva and gastric juices of the stomach, but present a vast surface to the action of the digestive fluids. It is claimed for shredded

LUNKENHEIMER "HANDY" GATE VALVES

Designed and guaranteed for working pressures not to exceed 75 pounds. The discs have ball and socket bearing between them, insuring an even bearing against the tapered seat. Discs will remain in any position placed. Valve can be operated by rod or rope from a distance. Specify LUNKENHEIMER "Handy" and order from your dealer.



Made in brass, sizes 1/4 to 4 inches inclusive, and iron body, brass mounted from 2 to 8 inches inclusive. Also, made in acid metal.

Can be had with English Standard pipe threads.

Cut this out, send to us, and we will mail you copy of our Catalogue.

THE LUNKENHEIMER COMPANY.

Largest Manufacturers of Engineering Specialties in the World. MAIN OFFICE AND WORKS: CINCINNATI, O., U.S.A.

230 NEW YORK

PHILADELPHIA

NEW ORLEANS

LONDON

PARIS

wheat that it is not only the cleanest, purest and most nutritious wheat food on earth, but the most easily digested.

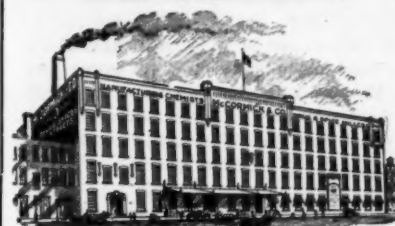
HARVARD'S BUTCHER ANCESTRY.

Harvard "beef," so much talked of in athletic and especially in college football circles, has taken on a new meaning. It appears that it is natural for Harvard football heroes to be "beefy." John Harvard, founder of the great university, was the son of a butcher at Southwark, England, and was born over his father's meat shop. This fact was brought out again recently when Ambassador Choate, who is a Harvard graduate, presented a stained-glass memorial window to the Southwark cathedral, in which Harvard was christened.

GRIT AND NERVE NEEDED.

The man who makes a success of an important venture never waits for the crowd. He strikes out for himself. It takes nerve. It takes a great deal of grit. But the man who succeeds has both. Any one can fail. The public admires the man who has enough confidence in himself to take a chance. These chances are the main thing after all. The man who tries to succeed must expect to be criticised. Nothing important was ever done but the greatest number consulted previously doubted the possibility. Success is the accomplishment of what most people think can't be done. 'Tis not wealth, nor rank, nor state, but "git-up-and-git" that makes a small business and man great.—Denver Commercial Tribune.

WE ARE HEADQUARTERS FOR



HERBS and SEEDS **PEPPER** SPICES and SALTPETRE

MCCORMICK & CO.,

IMPORTERS—MILLERS—GRINDERS,

Baltimore, Md.

Write for Samples and Quotations.

OILED CLOTHING.

An oiled covering for delivery wagons may be prepared from any duck or similarly strong canvas by painting it with boiled linseed oil colored to suit. It must be done in a very hot room or in the bright sunlight. A shoe-brush is the best for applying it. A little patent dryer may be added. It is said that the Chinese use a mixture of 1 ounce each of beeswax and soft soap with the oil, which is then boiled down. If the surface seems tacky, varnish with shellac varnish. In any case apply the oil as thin as possible and let it dry perfectly between successive coats.

SEE THE LIST OF
BARGAINS
ON PAGE 48



German Axes

Every German Axe is tempered and individually tested. Every Plumb's butchers' tool is made to stand the hardest kind of work.

The handles are set firmly and squarely. The edge is true and straight. If the edge turns or cracks, or the handle bends, send back the tool.

PLUMB'S TOOLS

are guaranteed to stand hard work. If they don't we want to know it.

Do you want to feel sure of your tool? Look for our trade mark.

May be bought of the following:
Koch Butchers' Supply Co., Kansas City, Mo.; Cincinnati Butchers' Supply Co., Cincinnati, O.; G. V. Brecht Butchers' Supply Co., St. Louis, Mo.; Bernard Glockler, Pittsburg, Pa., and of the leading Hardware Jobbers.

FAYETTE R. PLUMB,
Incorporated,
Philadelphia, Pa., U. S. A.

